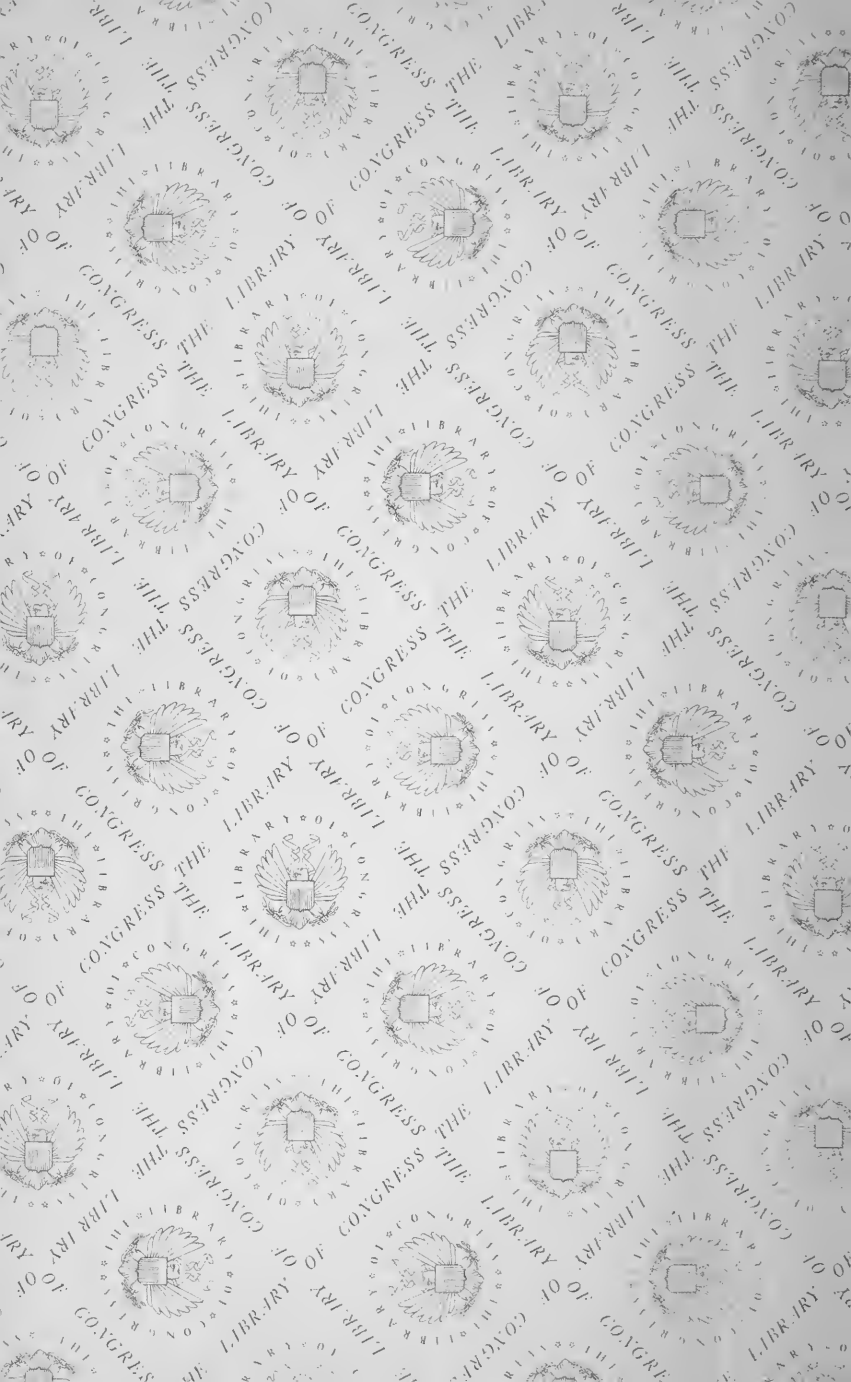


THE BOOK OF SCHOOL AND COLLEGE SPORTS

RALPH HENRY BARBOUR





THE BOOK OF SCHOOL AND COLLEGE SPORTS

BY
RALPH HENRY BARBOUR

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BEHIND THE LINE, WEATHERBY'S INNING
ON YOUR MARK! ETC.

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Better to hunt in fields for health unbought,
Than fee the doctor for a nauseous draught;
The wise for cure on exercise depend,
God never made his work for man to mend.

DRYDEN.

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CHAPTER I

FOOTBALL ANCIENT AND MODERN

THE DESCENT OF FOOTBALL can be traced back uninterruptedly to the twelfth century. Although there is no proof to that effect, it is probable that the game existed for centuries before that time; at least we know that the ancient Greeks and Romans played some sort of a game in which an object was kicked along the ground. Perhaps it is safe to say that the parent of the modern game originated with the first inhabitants of the earth, and that with the possession of legs and feet came a desire to kick something about, and its gratification.

However that may be, in the twelfth century and thereafter a game of football similar in essentials to the sport of the present day was played in England by the lower classes. Shakespeare refers somewhat contemptuously to it and the roughness indulged in by the contestants brought about the passing of laws prohibiting the game. Despite this, however, it flourished as a recreation for adults until the commencement of the nineteenth century, at which time it made its appearance in the public schools of England. There were then no hard-and-fast rules governing the playing of the game,

and so each school proceeded to fashion its own style of football. Eton evolved the "wall game," Charterhouse the "dribbling" game, Westminster and Harrow modifications of the latter and Rugby the game which still bears its name. In the "dribbling" game touching the ball with the hands was forbidden and the ball was made to progress only by means of the feet; tackling was also forbidden. In the Rugby game both running with the ball and tackling the opponents were features.

About the middle of the century football gained entrance to the universities, and in 1863 an attempt was made to form in London an association of Rugby clubs, an attempt which did not meet with success until 1871, at which time the "Rugby Football Union" came into being. Uniform rules were adopted and many objectionable features of the game eliminated. Players of the "dribbling" game had meanwhile formed the "Football Association" and all efforts to reconcile the differences in the rival forms of the game and to merge the two unions were vain. To-day the differences are greater than ever and both Association and Rugby football are enthusiastically championed and played from one end of Great Britain to the other.

Beside the Association and the Rugby game there are, exclusive of the American Intercollegiate game, three forms of football extensively played by English-speaking people. In Australia the Australian or Victorian game is enthusiastically followed, while the Rugby is also played to some extent. In Canada, be-

side the Rugby game, the Quebec, Ontario and Canadian Unions play a game under rules of their own adoption. In Ireland Gaelic football had its beginning several centuries ago and about 1890 immigrated to this country, where at present it is second in popularity to the intercollegiate game.

FOOTBALL IN AMERICA.—Football made its appearance in this country in the first quarter of the last century, when an inflated bladder was kicked about the village commons of New England. By the middle of the century the colleges had adopted the sport, and finally in 1873 Yale, Princeton, Columbia and Rutgers got together in New York, established a set of rules and so gave the first impetus to intercollegiate football. This beginning, however, was a rather confused adaptation of the English Association game, and the credit for introducing the Rugby rules, which are the foundation of the present system of intercollegiate football, belongs to Harvard. The Harvard players learned this game from Canadian teams and in 1876 persuaded Yale to try the Rugby Union Rules. These were adopted without change by the two universities and the first match played in the same year. The original game has been modified and improved along lines which encouraged team play and the development of "head work," until the American college football of to-day is as far in advance of the old Rugby game as the railroad was ahead of the stage-coach, in science and ingenuity.

In 1877 the Intercollegiate Football Association was

formed, made up of Harvard, Yale, Princeton and Columbia. In 1884 Columbia, her gridiron prestige dimmed by innumerable defeats, dropped out. The following year the association was reorganized by Harvard, Yale, Princeton, Pennsylvania and Wesleyan. In 1890 Harvard withdrew, followed in 1893 by Pennsylvania and Wesleyan, leaving Yale and Princeton only. Since 1877 these two colleges have played yearly games.

In the last decade, football has spread among the schools and colleges of the West and South, until such leaders as Michigan, Wisconsin, Illinois and Chicago universities have developed standards of play equal to those of the Eastern football pioneers.

The general system of scoring points now in use was adopted in 1883, although alterations in the values of the touch-down and goal from touch-down have since occurred, the former being changed from four points to five, and the latter from two points to one.

American football has passed through many vicissitudes and has more than once narrowly escaped wrecking. To-day, however, it is firmly enthroned as the most popular sport of American schools and colleges and it may be fairly assumed that its days of threatening hostility are passed. The game possesses both merits and demerits, but the former greatly exceed in the total of wholesome and invigorating influences. Football has always had its detractors and probably always will, and some of their grounds for objection are well taken. Yet there is no faulty feature in the game which is not capa-

ble of elimination by those who have the conduct of the sport in hand and its welfare at heart. Moreover, it is probable that all the features open to adverse criticism will ultimately be done away with, since so far the progress of the game has always been in the right direction and every change of rule has been made with an eye to ridding it of unnecessary roughness.

The argument most frequently advanced against football is that it is dangerous to the players. Accidents do happen, it is true, but they are almost all of slight importance. The danger of injury to boys of average health and strength is slight, if they are properly trained and prepared for hard play.

PERTINENT STATISTICS.—It is well to consider a collection of statistics recently made by Prof. Edwin G. Dexter of the University of Illinois, who conducted the most accurate and thorough investigation of college football ever attempted. He sent out a series of questions which were answered by the presidents or other officers of more than seventy colleges. It was found that in the last ten years no less than 22,776 students had played football in these colleges, that only 654 of that great army had been injured enough to lose time from their classes, that only 8 had been reported as permanently injured, and that 4 of these would ultimately recover. Not one death could be traced directly to football in this large number of players. A large accident-insurance company reported to him that in the time during which they had paid 43 claims for injuries in football, they had

recorded 36 injuries in skating, 25 in golf, 19 in tennis, 71 in bowling, and 97 in swimming. It is true also that whenever there had been a larger percentage of football hurts in preparatory schools than in colleges it has been because the younger players had not trained properly, had made the mistake of playing with teams too heavy for them, or had thought they could play as hard and as fast and as long as the older and more seasoned members of the college teams.

CHAPTER II

HOW AMERICAN FOOTBALL IS PLAYED

THE FIELD.—American intercollegiate football is played on a field 330 feet long by 160 feet wide, its boundaries marked by lines of white lime. (See Diagram A.) Two of these lines are known as “side” or “touch-lines,” two as “goal-lines.” When the ball passes outside of these lines it is “out of play” until returned. The territory so enclosed is marked by lines which cross the field at 5-yard intervals.

Between the two “25-yard” lines, so called because they are 25 yards from either end of the field, other lines running lengthwise of the field 5 yards apart give the “center section” the appearance of a checker-board. Within this the rules provide for plays that are not allowed inside the “25-yard lines,” and the partial “checker-board” pattern is merely adopted to help the referee in deciding whether these particular plays are in violation of the rules.

Of the cross-lines, three have special significance—i. e., the two “25-yard lines” and the “55-yard line,” the latter marking the center of the field from which the kick-off is made at the beginning of the game and after

a goal has been tried for from touch-down, and the "25-yard lines" constituting limits beyond which the opponents may not advance when the side having the ball has earned a "kick-out" and limiting the territory in which "mass plays" may be used. In the middle of each "goal-line" stands the "goal," consisting of two upright posts 18 feet 6 inches apart connected by a horizontal bar 10 feet from the ground. To score a "goal" the ball must be kicked above the cross-bar and within the uprights.

THE TEAM. — Eleven players constitute a team. Seven of these are known as "rushers" or "forwards" and constitute the "line." Four others are known as "backs." When facing the opponents for a "scrimmage" in ordinary formation they are distributed as follows:

Left	Left	Left	Center	Right	Right	Right
End	Tackle	Guard		Guard	Tackle	End
			Quarter- Back			
	Left Half-Back			Right Half-Back		
			Full- Back			

THE OBJECT OF THE GAME is to get the ball, a spherical inflated rubber bladder enclosed in a covering of grain leather,¹ over the opponent's "goal-line." This

¹ The term "pigskin" used to denote the football is now only a courtesy title, since for many years the covering of the ball has been made of English grain leather.

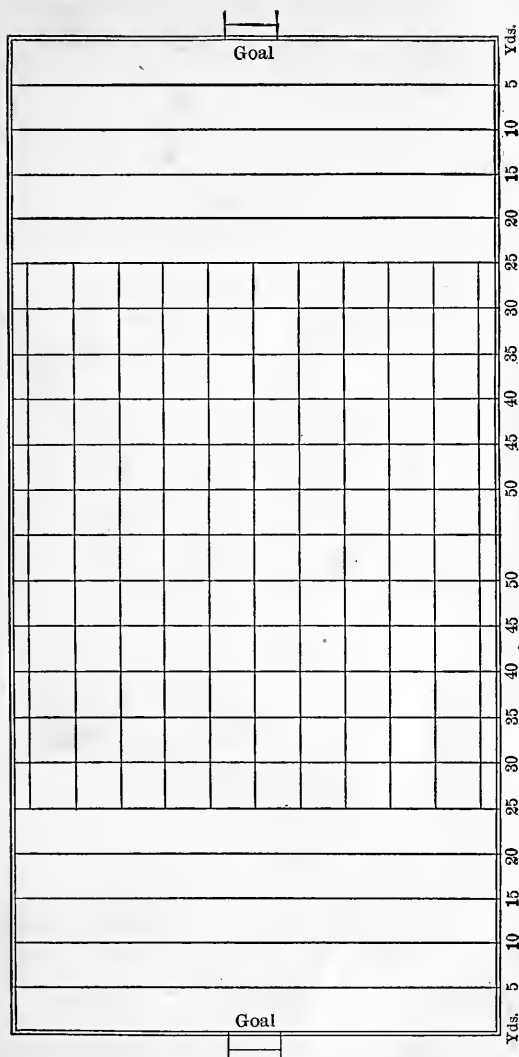
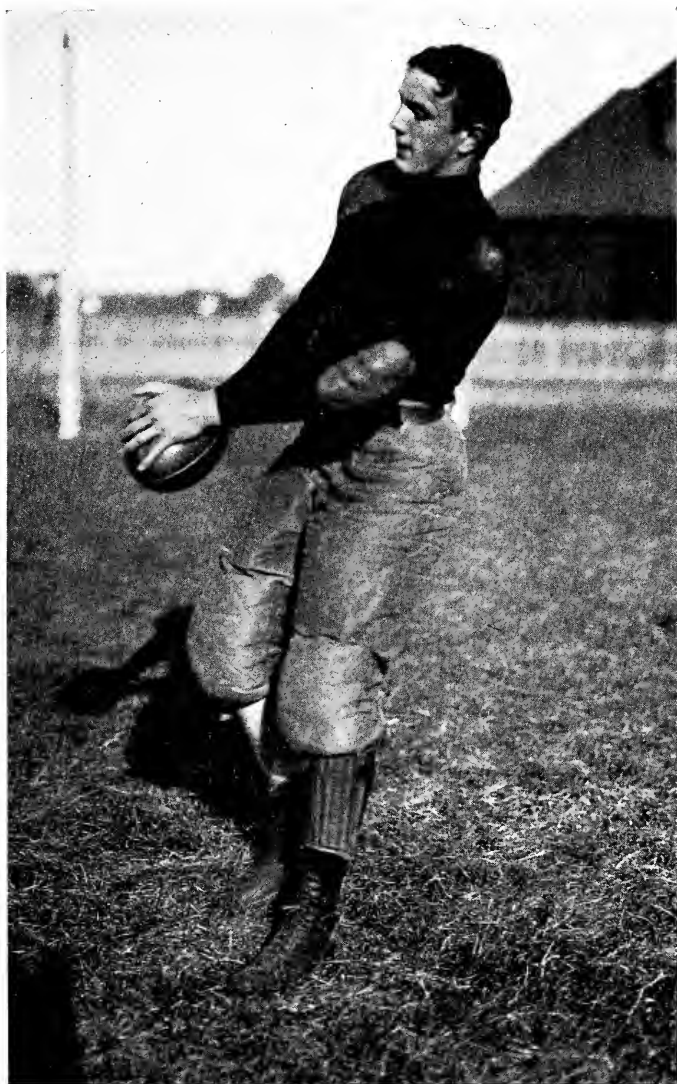


DIAGRAM A.—The football field.

may be done, under certain restrictions explained in the rules, by kicking the ball or carrying it. If the ball is carried over the opponent's "goal-line" by a player, or is secured there by such player, a "touch-down" is scored and the side scoring it has earned a free "try at goal." A "touch-down" counts 5 points and a goal from "touch-down" 1. A "goal" may also be effected by a kick from the field without first making a "touch-down," provided the kick is not a "punt." A "punt" is a kick made by dropping the ball from the hand and meeting it with the foot before it touches the ground. A "punt" never scores a point. A "goal from field" may be made by means of a drop-kick—performed by dropping the ball from the hand and kicking it as it rises from the ground—or a "place-kick," in which the ball is kicked from a position of rest upon the ground; this is also referred to as a "kick from placement."

A "goal from field" counts 5 points. The only other method of scoring is by a "safety." This is accomplished when a player is forced to touch the ball down behind his own goal-line, and counts 2 points *for the opponent*. A "safety" is used only when the side having the ball is hard pressed, in order to prevent the opposing side securing the ball and scoring a "touch-down." After making a "safety" the side retains the ball and is allowed a "free kick" from any point short of its 25-yard line. A "free kick" is a play in which the opponents are restrained by rule from interfering with the ball until the kick is made.



PUNTING.

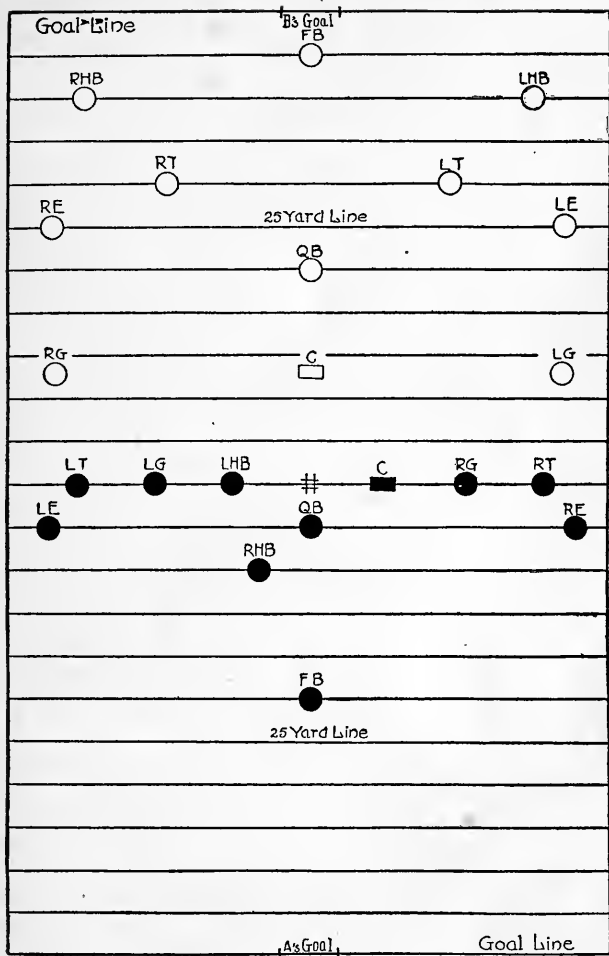


DIAGRAM B.—Position of players on football field at kick-off.

PLAY IS BEGUN with the opposing teams distributed as in Diagram B and the ball in the centre of the field on the "55-yard line." From there it must be kicked off by means of a "place-kick" not less than 10 yards. The object of the side having the ball is to kick it as great a distance as possible without sending it over the opponent's "goal-line" and at the same time give it sufficient elevation to allow the players of that side to run down the field under it and "tackle" the man who secures it before he can run or kick it back.

In the present case, by way of illustration, we will suppose that A's "full-back" has kicked off the ball and that B's "left half-back" has received it. Desiring to retain possession of it for his side, he does not "punt" it back, but instead tucks it under his arm and runs with it toward A's "goal," the others of his team having quickly formed about and ahead of him in what is termed "interference." Meanwhile the opponent (A) has sped forward the instant the ball is kicked and is charging down upon the man with the ball, who is called the "runner." (Diagram C.) Ultimately B's "interference" is broken up, the "runner" is "tackled" and brought to earth and the ball becomes "dead." It is then B's "first down."

Now comes the "scrimmage" (Diagram D). The two teams "line up" on either side of an imaginary line passing through the axis of the ball at right angles with the "side-lines" and B's "center rush" or "snapper-back" stoops over the ball and at a signal from "quar-

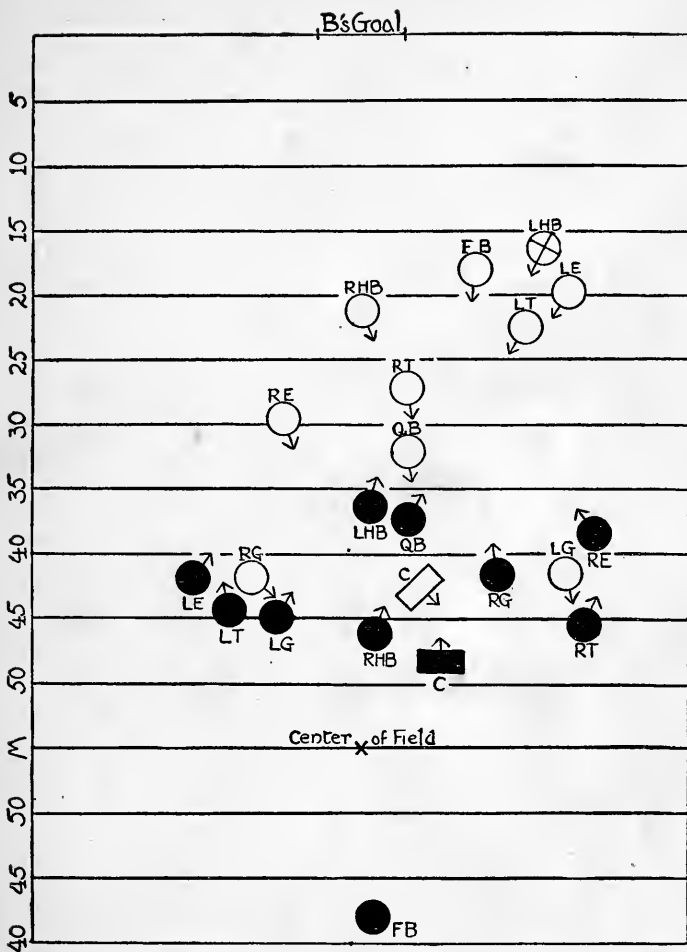


DIAGRAM C.—Interference formed for run-back of ball after kick-off.

ter-back " passes it between his legs to that player who may run with it, kick it or pass it to a third player, who in turn may advance it by running or kicking or may again pass it to yet another member of his team, or, failing to do any of these, touch it to the ground, when it again becomes " dead," and " second down " is called. If in three consecutive " downs " the ball has not been advanced 5 yards it goes to the opponent. There is, however, one exception to this rule; if the side having

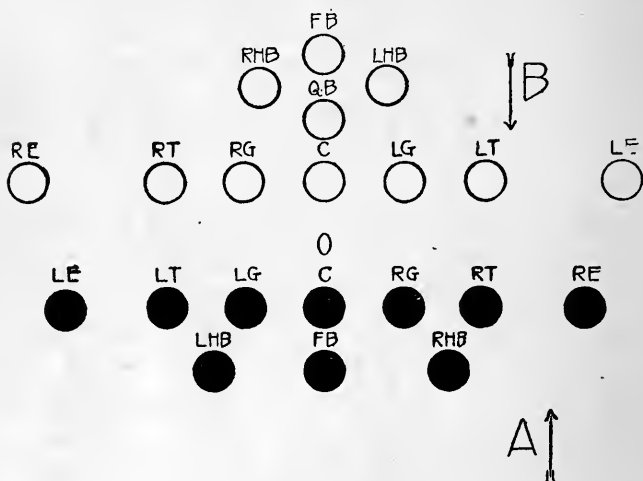


DIAGRAM D.—Positions of players at scrimmage : B has the ball.

the ball wishes to retain possession of it at the sacrifice of territory it may do so by taking it back 20 yards and there touching it down for a " first down." This is, naturally, a play seldom used.

If in " two downs " the team with the ball finds itself

unable to "make ground" or advance the ball it will usually kick. In this case one of the players stands back from the line, receives the ball and punts it down the field. Thereupon all the players of his team are "off-side."

"In a general way it may be said that 'off-side' means between the ball and the opponents' goal, while 'on-side' means between the ball and one's own goal. A player is barred from handling the ball when in the former predicament. When a ball has been kicked by a player, all those of his side who are ahead of him, that is between him and the opponent's goal, are off-side until the ball has been touched by an opponent."—(WALTER CAMP.)

PENALTIES.—For this and other offenses "penalties" are provided by the rules, these "penalties" entailing either the loss of the ball or of territory. A team may be also penalized when, if it has the ball, one of its members uses his hands or arms to detain an opponent; if, when it has not the ball, any player uses his hands or arms for any purpose other than to get an opponent out of the way; if any player interferes with the "snapper-back" while he is putting the ball in play; if any player trips an opponent or indulges in unnecessary roughness; if any player throws, passes, or bats the ball toward the opponent's goal and if any player interferes with a player of the other side when the latter is about to make a "fair catch."

KICKING.—There are three methods of kicking the ball. A "Punt" is made by dropping the ball from the hand and kicking it before it reaches the ground.

A "Drop-Kick" is made by dropping the ball to the ground and kicking it just at the rebound.

A "Place-Kick," or "kick from placement," is made by kicking the ball while it is on the ground. In the "kick-off" a "place-kick" is used, the ball being "cocked" in a depression of the soil. In a "try-at-goal" after a "touch-down" the "place-kick" is also used, in this case the ball being pointed and so held by another player. A "goal from field" may be made either from a "place-kick" or a "drop-kick"; never from a "punt."

A "FAIR CATCH" is made by catching the ball after it has been kicked by the opponent before it touches the ground, at the same time making a mark with the heel to signify that no attempt at running will be made. A "fair catch" entitles the side making it to put the ball in play by "punt," "drop-kick" or "place kick" without interference by the opponent. This is termed a "free kick."

The game consists of two thirty-five minute halves with a ten-minute intermission, or shorter periods of play may be used if mutually decided upon by the captains of the contesting teams. Time is taken out while the ball is being brought out for a "try-at-goal," "kick-out" or "kick-off," when the game is unneces-

sarily delayed or when play is suspended by referee or umpire.

THE OFFICIALS are an Umpire, whose duty it is to decide upon the conduct of the players; a Referee, who decides questions regarding the ball's movements; and a Linesman, who, with two assistants, one representing each contesting team, marks the distance gained or lost, assists the other officials in penalizing violations of the rules and keeps the time.

This is by no means all of football; but enough has been written to supply a foundation upon which the uninitiated may build a knowledge of the subject.

CHAPTER III

FORMING A TEAM

FOOTBALL A RECREATION.—Before going further it is well to emphasize one point in the hope that it will be remembered by the reader: Football is a recreation and not a profession. If you go in for the game bear this in mind. Very often, if you make the team, you will find yourself inclined to doubt the truth of this statement, for nowadays the training of a football eleven has become such a serious and systematized undertaking that the candidate very naturally receives a wrong idea of its importance. If you go in for football, put your whole soul into it, as the saying is, as long as you're at play or practise; but leave football behind you when you leave the field; don't take it into class, don't take it home and, above all, don't take it to bed with you. When you find football taking up too much of your thought or time, which is especially likely to be the case just before a big game, recollect that in a year no one, yourself included, is going to care a button who won, or why. Football, in short, is a good game—there isn't a better one—but it isn't the chief thing in life nor half so important as it sometimes seems.

LAYING THE FOUNDATIONS.—The forming of a team to represent a school should be done carefully. If the school has never supported a team before the necessity for care in the undertaking is largely increased. Future success will depend largely upon the laying of a firm foundation now, therefore don't approach the project at haphazard. The first step should be to consult the faculty. Don't stop at getting their permission; enlist their active interest if possible. Find out what the faculty's attitude is to be in regard to the use of a training table, trips away from home and similar matters. In case you think the faculty should make more allowances than they appear willing to, call in the services of such influential graduates of the school as you can reach.

The next step should be the obtaining of the approval of the school. If possible secure a mass-meeting. Get the whole student body behind the team at the very start. At the meeting explain the attitude of the faculty; perhaps you will be able to get some member of the faculty to do this for you; tell what the plans are and ask the school's support. Secure the appointing of a committee, to consist of three persons representing the faculty, the alumni and the students, to take charge of the work. This committee should at a subsequent meeting elect a manager and with him perfect final arrangements as to the field, the securing of games with other schools, etc., and issue the call for candidates. The appointment of a temporary captain should follow and under his direction the first two weeks of practise may

be held. But by the end of the first week in October, if possible, such candidates as have been selected for the first and second elevens should hold a meeting and elect a permanent captain.

SELECTING A COACH.—Before this, however, the question of the selection of a head coach will have presented itself for consideration, and whereas in subsequent years it will be well to give the captain a voice in this matter, in the present case because of the press of time it will be necessary to leave the appointment of that official to the Advisory Committee and manager. If possible secure an alumnus. All other things being equal, the fact of the coach being a graduate of the school will tend toward better results. With the advent of the coach football affairs will be in the hands of six persons, i. e., the three members of the advisory committee, the manager, the captain and the coach.

It is quite possible, however, that because of lack of money or for some other reason the employment of a regular coach will be out of the question, for the first year at least. In that case the captain must be both captain and coach. But the lack of a regular coach need not necessarily mean that the team is to receive no experienced instruction. It should not be a difficult matter to arrange with a number of patriotic graduates for two afternoons a week of coaching, and perhaps, in addition, the funds in hand will allow of the engagement of a good coach for a week before the important game. With such assistance the captain should be able to get through

the season very well. Unless the school has a regular trainer the physical care of the men must be left to the physical director.

TO THE CAPTAIN who must be his own coach the following remarks are addressed: Football is essentially a game of team-play, and without team-play, no matter how brilliant its members may be individually, no eleven can hope to win. But at the same time, as no eleven is stronger than its weakest player, the necessity for thorough individual training is apparent. It is a fault with many school teams that individual coaching is skimped in order to develop team-work. This doesn't pay in the long run. It is like erecting a good building on a faulty foundation.

The football season is practically nine weeks long; of these not less than four weeks should be devoted entirely to individual training. The head coach or captain should arrange beforehand a systematic plan for the team's development and should adhere strictly to it. There will come times when the captain training his first team will be assailed by a veritable panic, when it will seem to him that the team is woefully behind the season and when the temptation to drop rudimentary work and plunge into team play will be strong. This experience is almost inevitable, and while it lasts it constitutes an unpleasant period. The temptation must be resisted and the original plan maintained.

From the first passing of the ball in a circle by the candidates to the last game of the season the captain

should keep his eyes busy. It will not do to depend altogether upon the memory; a note-book is indispensable in keeping track of the individual work of the candidates. In this book he should keep a record of every player's progress; the player who does not progress after a fair interval should be dropped from the book and the squad. When the time comes for the final selection of the candidates to form the first eleven the records will be found invaluable.

The first day's practise should consist of passing the ball, starting and falling on the ball. For passing form your men into rings of a dozen or so each and see that the straight-arm pass and the elbow or groin catch is performed correctly; in case of a fumble insist that the fumbler shall drop upon the ball. Next form the men into line and start them either by waving your cap or by snapping a ball. Quick starting is essential and too much practise can not be given. In falling upon the ball arrange the men in a line; in this way you will have them better under your eye. Start with a ball moving away from the player, then change to one moving toward him. Make the first day's practise sharp and short; a half-hour is sufficient. Finish it up with a brisk half-mile run.

The second day's work should vary but slightly from the first's. Catching and passing, starting and falling on the ball should be given, and a half-hour will be sufficient. The half-mile run may be increased to three-quarters.

On the third day further variations of falling on the ball may be introduced; as ball moving toward player from the right, toward him from the left. Kicking and catching by the backs should be inaugurated with center men passing the ball to the kicker. The forwards should be given a stiff run of a mile and the balance of the candidates should be jogged around the field for such distances as their conditions require, being careful always not to wind them too severely so early in the season.

The remaining variations in falling on the ball may be taken up on the fourth and fifth days; ball moving away from player to the left; to the right; ball dropped at player's feet; diving for motionless ball. Blocking for the forwards may be begun about the fifth day, the candidates being lined up opposite each other and taking turns at blocking and charging, the signal being given by the snapping of a ball in the hands of the centers. The forwards may be sent on a run of a mile and a half and the others a mile at a brisk pace.

At the beginning of the second week the afternoon's work will consist of about the following:

1. Falling on the ball.
 2. Catching punts for all hands.
 3. Blocking and breaking through for the forwards.
- Kicking and catching for the backs.

4. Two-mile run for backs; one-and-a-half-mile run for forwards, condition and weather permitting.

If a dummy is used instruction in tackling should begin at this time and be continued daily until the practise

games provide experience. It is well, however, to keep the dummy handy until the end of the season, since sometimes players who excel in other branches are backward at tackling, in which case a few minutes daily at the dummy is highly beneficial.

Toward the last of the second week is time enough to pick two teams and start the daily line-ups. Instruct each team in from four to six simple plays, as half-back between guard and center, same between guard and tackle, same around his own end, full-back between guard and center, same around the end. Give them signals, the simpler the better, and have them go through the plays, at first at a walk and afterward at full speed.

Follow this up the next day with a ten-minute line-up of hard playing. Start now with the instruction of position playing. You will need assistance now if at any time during the season, since each position ought to be taught by some one who knows thoroughly how to play it. But if assistance isn't to be had, do the best you can and don't despair. Remain out of the line-up as much as you can without endangering your own progress and study the work of each player, correcting mistakes to the best of your ability and insisting on proper form at all times. After some progress has been made add more complicated plays and teach a more extensive code of signals to each team. Signal practise may be held indoors two or three evenings a week, and when the more important plays are to be learned instruction by means

of diagrams on a blackboard or on large sheets of paper should precede the gridiron trials.

By the second week in October matches with outside teams will have begun. At this time of the season the halves ought not to be longer than fifteen and ten minutes; from now on they may be increased gradually until at the game prior to the last contest they consist of two thirty-minute periods.

In the first game with an outside eleven team-work will probably be conspicuous for its absence. This is as it should be. Individual work is the first and most necessary thing to consider; it is the foundation on which the perfect structure is to be built. With the fundamentals once hammered into the team the coach may begin on team-work with a light heart; not that the rest is play, but he has obtained a firm foundation, and no matter how much weight of instruction he piles on top, it is going to stand.

Guard against overwork; remember that a preparatory-school player won't stand what a college man will, no matter how willing and ambitious the former may be. On the other hand, watch out for indications of staleness. The key-note of good condition is regular work, but not too much at a time.

Ten minutes of dumb-bell exercise should be taken by the entire squad every day before outdoor practise to limber up the muscles. This exercise will prevent many of the minor strains which often delay the progress

of a team at the beginning of the season, and should be continued for about five weeks. Don't allow any candidate to shirk it. Stiff or strained muscles are useless on the gridiron.

Study your men. When the time for forming the provisional first and second elevens comes give consideration to the spirit of the candidates. Beef is good; so is brawn; but without the right spirit it is "dead wood." The most brilliant player on the team sometimes proves a "quitter" when the supreme trial comes, and seventy minutes of fierce, grueling play will occasionally make cowards of the brawniest of men.

Maintain discipline during practise. Permit no loafing. Plan the afternoon's work ahead so that every one will have something to do all the time.

Insist upon being addressed respectfully by the players. Don't be "Jim" or "Tom" or "Dick" during practise hour. You're in command; make that understood at the start. As long as you are head coach you are entitled to be addressed respectfully as "Coach" or "Mr. Coach."

Don't wind your men. Lung endurance is a valuable asset in the football player and its development is a matter of gradual work. A player will have twice the lung power at the end of the season than at the first if he is not overtaxed severely. When a man is winded take him out and let him rest; then send him back again into the game.

Penalize high tackling by taking the offender out

of the game for the rest of the day. This is an effectual method of getting rid of a dangerous fault.

Insist that players drop on the ball whenever it is dropped. Never allow them to stoop for it.

In unimportant games instruct your team, after making its first score, to make succeeding scores through the strongest point in the opposing line. This will aid in developing the fighting spirit without which a team is incapable of commanding victory.

Remember that a simple, ground-gaining play is better than any number of involved and difficult tricks which may look brilliant in diagram but which only succeed in tying the team into knots. School teams very frequently waste much precious time prior to a final contest trying to perfect themselves in three or four spectacular "sky-rocket" plays which when tried against the opponent only look ridiculous and possibly lose the ball. One or two good tricks are not to be despised, but they should be used sparingly and advisedly. Trick plays belong of right to advanced teams, and while the university team may use a large number of them to advantage the school team would do better to confine its attack to straightforward plays in which as few men as possible are concerned and the risk of confusion is slight.

Encourage your men to "get together" at all times; foster the spirit of *camaraderie*; take the team into your confidence whenever possible; when a policy is decided upon tell them what it is and why it was chosen. Let it be "shoulder to shoulder" in every-day life as well as

in the contests, so that when the final battle comes it will be a case of "eleven men working as one."

TO THE PLAYER.—Every boy, barring physical infirmity, can learn to play football well enough to become more or less of a factor in the football situation. If he fails to make the first team, there is the second; if he doesn't get on to the second, there are the class teams and the scrub elevens. There the glory to be gained is less gorgeous, but still glory; and bear in mind that from a class team to the second eleven is an easy step and that this year's second will be next year's first, to a large extent.

But the boy who has true sportsmanship in him will play for the mere love of playing without dwelling overmuch upon whether or not the honor of fighting for the school in the championship contest is to fall to his share. And that boy is very likely to make the team. The hard knocks and the aching muscles that will become the beginner's portion at first will bring dismay; and the discovery that instead of knowing, as he supposed, the game from A to Z he has almost everything to learn, is likely to discourage him for a while. But if he possesses that mysterious something called "football instinct" to any degree discouragement will pass quickly, the bruises will heal and his knowledge of the finer points of the game will increase with leaps and bounds, proving that he "has it in him."

"Football instinct" is something more than a mere ability to learn the rules and remember them, to run



THE SCRIMMAGE.

Quarter-back passing to full-back for tandem on tackle.

high, tackle low and keep the eye on the ball; it is something not every player has, but when he has it it makes itself apparent early in the season and that player is pretty likely to find himself, sooner or later, wearing the coveted letter on his sweater.

CHAPTER IV

TRAINING

PHYSICAL FITNESS ESSENTIAL.—Every boy realizes that a good physical condition is essential if success is to be won in any branch of athletics. Football, of all the athletic sports indulged in, except rowing, is probably the most exacting on muscular strength, endurance and nervous energy. Careful training, therefore, is of first consideration. But there is a vast difference between careful training and overtraining, a fact which is at length being recognized. The old methods of exhausting practise on a diet of raw beef have fortunately given place to more common-sense systems, and nowadays a man may play football without living like a freak in a circus side-show. There still exists, however, much difference of opinion between the various authorities as to the best means of training for football. But at the same time there are certain rules which experience has proved to be good, and it is on those that this chapter is based.

If the material which comes to the hands of the trainer or coach at the beginning of the season consisted of from thirty to sixty fellows each in hard, fit physical condition his task would be comparatively simple. But

this is never the case. There may be among the candidates a very few who have kept in training from the previous season and some who have led healthful outdoor lives during the summer months, but the great majority will be fellows who have never trained in their lives and who have given but the scantiest consideration to physical well-being. Before the coach can make football players of such he must first turn them into athletes; that is, he must, by a careful *régime* of calisthenics, outdoor exercise and proper diet strengthen their bodies and clear their brains. As his material does not come to him until the beginning of the football season, it follows that the first two or three weeks are a period of physical preparation rather than of instruction in the game. To be sure, the game is taught during that period, but only as the condition of the players permits, slowly and with the utmost caution. If the candidates were in good physical shape when taken in hand by the trainer or coach the latter would be spared much trouble and worry and would be able to teach a great deal more football during the nine weeks than he can now.

Avoid Overworking.—During the period of physical hardening, which may last from two to three weeks, the player is far more liable to injury than later in the season; his muscles are not yet working smoothly; his flesh has not hardened; his lung-power is not fully developed and he is easily tired. A wearied player is much more liable to injury than a fresh one, and many of the minor sprains and bruises so common at the beginning of

the season are due entirely to overexertion. It has frequently happened that teams have had so many players placed upon the hospital list from early-season accidents that they have been unable to line up in full strength before the last week in October. There is one axiom, then, upon which too much emphasis can not be laid, and that is: *Go easy for the first three weeks.*

But even after the three weeks is up there is still necessity for moderation as to the amount of work. A well-known and successful trainer has laid down the rule that two hours of football each working-day, whether in gymnasium, on the field or in the lecture-room, are sufficient for any college team. If we accept that as correct, then an hour and a half should limit the work of a preparatory-school team even at the end of the season. There is no doubt but that overtraining is still prevalent among school teams and is largely accountable for the injuries reported. Trainers and coaches are apt to lose sight of the fact that their charges have not the physical stamina that they have. Even if the overtrained player escapes injury, he is still of doubtful value to his team—in fact, the average coach will choose an undertrained player rather than one who is overtrained. Therefore if you are coach or captain avoid overtraining your men. If you are a player avoid becoming overtrained; take warning by the first continued spell of lassitude or “don’t careishness” and report your condition to the trainer; don’t wait for him to find it out.

No harm can come from playing the men hard; push

them all you want to; fast, snappy practise is what they expect and want; but learn when to stop. The danger lies in keeping at it too long.

Overwork is especially liable to fall to the lot of heavy line men, notably centers and guards. Usually these will commence practise with anywhere from 10 to 30 pounds of useless weight, which must be worked off. Until it is worked off it is a serious encumbrance and it is not wise to require the same amount of work from these heavy-weights as from men who are in fair condition. The extra weight tells and they are easily overtaxed. Their work should be light at first, gradually increasing as their condition betters. To play such men a small portion of each day is all that should be attempted.

Practise alone will not take off their superfluous weight and running must be resorted to. Here short sprints at good speed are what are required and not long runs. Thirty- or 40-yard dashes at a pace something under their best, with walking between, will soon eliminate the undesirable weight. With this a certain amount of setting-up work in the gymnasium may be resorted to.

The backs, too, are liable to receive rather too much attention from the coach. To use the same trio all through a thirty-minute practise risks disaster both for them and for the team. A man should leave the field with something left in him and not all tuckered out. After a back has learned the lesson you are teaching and has proved it to you by his playing it is far better to take him out than to keep him hammering at the line or run-

ning the ends until he is tired out and the work has begun to seem distasteful.

“ Make haste slowly ” is one of the best maxims that a football coach can paste in his hat.

WHAT TO EAT.—As to diet, the best rule is to eat what agrees with you. As, however, players in training can not, unfortunately, be trusted to observe this rule, a little advice for the guidance of those in charge of their dietary welfare may be of service.

The food should be well and plainly cooked and attractively served. Variety should be sought after. The men should have enough, but overeating should be carefully guarded against. See that plenty of time is taken; rapid eating is the worst offense one can perpetrate against the stomach. Avoid much water at meal-times, but drink often when away from the table and always before retiring and on arising. Never take water, save to rinse the mouth out, from the time you dress for play until you are once more in street clothes.

Use no alcoholic drinks unless prescribed by the physician. Do not smoke. Never eat between meals.

Beef, roasted or broiled, mutton, roasted, boiled or broiled, chicken and turkey are the meats to eat. Fish should be used occasionally. Eggs cooked in any manner are desirable. Eat no hot bread. Cereals, especially the less starchy ones, are valuable so long as they do not satisfy the appetite to the exclusion of meat and vegetables. Vegetables should be eaten freely, and also fresh

and dried fruits. Substitute boiled rice for potatoes at least three times a week. Avoid pastry.

REGULARITY IN DAILY LIFE is an important factor. The time of rising, of meals, of practise and of retiring should be on schedule during the training season. Plenty of restful sleep is essential, but it is impossible to lay down any rule as to the length of sleeping which may apply to all cases. Some persons find seven hours all that they need, while others can not be refreshed by less than nine. Bedtime should be fixed at no later than ten o'clock, however, and if breakfast is at 7.30 there will intervene sufficient time to accommodate long sleepers and short sleepers alike.

OVERTRAINING.—An ounce of prevention is worth a pound of cure, and it is much better to prevent overtraining than to cure it. But if the trouble does occur, rest and change form the best remedy. Lay the player off for two or three days, let him take his meals away from the training-table and instruct him to keep his mind away from football. He should spend all the time possible out of doors, taking walks of from two to four miles at a pace brisk enough to keep his muscles in commission. If the player's home is not too far away, and it is possible to send him there for a day or two, do so by all means. Change of scene and associations is an excellent antidote.

The use of chewing-gum during practise, to keep the mouth moist, is not advisable save possibly in early season on extremely warm days. After you have become

accustomed to the work you will find that your mouth is sufficiently moist without gum.

Those having preparatory-school teams in charge should be careful not to allow their players to meet teams much excelling them in weight and strength. Many of the injuries sustained by young players are due to such ill-advised encounters.

ATTIRE.—Too much attention can not be given by coach, captain and player to the subject of proper attire. Every player should dress so that he can do his part well and so that he will be as little liable to injury as possible. Those in charge should insist that protective armor is worn whenever in their estimation it will lessen the chances of accident. Knee, thigh, elbow and shoulder pads are essential. A light leather anklet or any satisfactory brace is an excellent thing for ends, backs or players whose ankles are in the least inclined toward weakness. A head harness is a necessity for any player who is required to carry the ball, while shin-guards more than atone for their discomfort by the protection they afford. Nose-guards are hard to breathe through, but should be worn when possible.

Shoes should not only fit the wearer, but should be exactly right as regards weight. They should afford ample protection to the ankle-bones and should not chafe in any part. A tongue of undressed leather will better save the instep from the discomfort of tight lacings. Much kicking will necessitate a box toe. Cleats should be looked after frequently.

After the first half of a game a thorough change of clothing is advisable; failing that, clean, dry underwear should take the place of the perspiration-soaked garments.

CLEANLINESS is a necessity. Hot baths should always precede the cold ones, and only a free use of pure soap will thoroughly remove the perspiration from the skin. Avoid long hot baths, however; they are weakening and depressing. And do not overdo the cold shower. Some persons are unable to stand the shock of the icy water immediately after the hot. These should either have the chill removed from the water or allow the body to return to its normal temperature after the hot bath and before the cold. Remaining under the cold shower for any length of time is in any case ill advised.

Sweaters and blankets should always be in readiness on the side line and the trainer should see that they are at once donned after playing. Players should not be allowed to sit upon the ground as long as benches are possible.

INJURIES.—Many of the injuries which occur every autumn could be avoided by care. There are a few simple and easily remembered rules which if adhered to will keep the player off the hospital list.

Keeping the body well forward with arms extended to ward off opponents will prevent injuries by opposing interferers. Do not let an interferer touch you; use your arms and keep him off.

In mass plays get off your feet. Dive into the plays

and lie low. Never try to stop mass plays by standing up against them; that may mean a broken limb.

When thrown do not attempt to save yourself by reaching out; that too may mean a break or sprain. Keep your legs straight and fall limp. As long as you lie flat you are safe no matter how many pile on; you may find the position a bit uncomfortable, but you can't be hurt.

When you tackle break your fall with the other fellow, keeping legs behind you. If you are tackled fall forward and on the ball.

Collisions result only from stupidity; look where you are going.

In diving for the ball be careful not to go at it in such a way as to strike the ground with the point of the shoulder. Never attempt to fall flat upon the ball; if you do this you stand an excellent chance of injuring the chest, or at least of having your wind knocked out. Use elbows or knees to break the fall.

In bucking the line the player should keep the muscles of the neck tense and the chin well down against it to prevent wrenches.

Finally, remember that it is the slow, indecisive player who gets hurt, so use dash and ginger.

SPRAINS AND BRUISES.—If possible every injury to a player should be looked after at once by a physician. At the same time there are numerous casual hurts which may be attended to by the trainer or coach. A simple bruise should be at once protected by a pad of cotton or

wool. If the knee is bruised a moistened sponge bound beneath the knee-cap will afford temporary relief and protection. As soon as possible the part should be bathed well with hot water and then covered firmly with a hot compress. In a day or two gentle rubbing and manipulation should follow to reduce the swelling.

A simple sprain need not necessitate the withdrawal of the player from an important game. If the part is snugly bandaged or fitted with a leather cap it will do. In the case of a sprained finger protect the joint by strapping the injured member to its next neighbor. After the game, however, the injury should be seen to by a surgeon.

The inflammation of the anterior thigh muscles known as "Charley-horse" and caused by repeated bruising or overstrain requires hot applications with pressure, complete rest and, later, massage of the affected muscles. Shin-guards sewn into the trousers over the fronts of the thighs are excellent preventives of this very common complaint.

Breaks and dislocations are matters for speedy attention on the part of the surgeon.

CHAPTER V

THE FUNDAMENTALS

Handling the Ball

BEFORE it is possible to play a good game of football it is necessary to have a thorough knowledge of the fundamentals. The fundamentals may be roughly classed as Handling the Ball, Kicking and Using the Body. None of these things can be learned from a book; practise is the royal road to success; yet certain explanations and suggestions may be laid down here which will prove of assistance to the beginner.

FALLING ON THE BALL.—There are four methods of falling on the ball in common use, each of which should be mastered. If the ball is coming toward you from the front, throw the body to the ground sidewise at right angle to its path and gather it to your chest with the arm, rolling over upon it sufficiently to protect it with the body. If the ball is coming toward you from the right, follow the same methods, throwing the body upon the left side; if the ball is coming from the left, drop upon the right side. If the ball is moving away from you, drop forward, breaking the fall with the

knees, gather the ball to the chest and snuggle it there tightly. Always break your fall with knees or elbows.

If the ball is fumbled during the scrimmage and rolls within your reach, quick action is necessary. Without moving from your position throw your legs into the air behind you and drop upon the ball with your chest, breaking the fall with the elbows. These three methods apply to a moving ball. A motionless ball or one very nearly motionless may be taken in any of these ways and in one other, i. e., by diving. Usually diving is resorted to only when the ball is threatened by an opponent and it becomes necessary to reach it in the shortest possible time. Having reached a point from 8 to 10 feet from the ball, launch the body forward, landing upon the ball with elbows to the ground. Avoid leaping into the air, which would increase the fall as well as the distance of flight. Virtually the dive is a forward fall accompanied by a quick propulsion by the feet as they leave the ground. There is a knack to diving, whether to reach the ball or to tackle the runner, which must be solved by practise. It is, however, a necessary as well as spectacular accomplishment and will repay for the learning.

A rolling ball, unless its motion is very slight, should never be dived for, since it is an erratic object and nine times out of ten will alter its course sufficiently after the diver is off his feet to escape capture.

Never stoop and pick up a rolling ball; drop on it; it's a hundred per cent safer.

PASSING.—There are six methods of passing the ball: the straight-arm throw, the overhand throw, the underhand throw, the toss, the long pass, and handing.

THE STRAIGHT-ARM THROW consists of holding the ball lengthwise in the curved palm of the hand with the fingers grasping one end, the arm held back at about right angles to the body, then swinging arm and body about on the foot farthest from the ball and letting the latter go when in range with the target, giving it a quick snap as it leaves the fingers. In this flight it turns upon the shorter axis and is as accurate as well as a speedy throw. This throw may be varied as to elevation of flight by the position of the arm.

THE OVERHAND THROW is of less value in actual playing. The ball is grasped as before, the arm describing an arc above the shoulder, and released when about on a level with the eyes. It is a straight swift throw, but not so accurate as either the straight-arm or the underhand.

THE UNDERHAND THROW consists of grasping the ball with the hand as for the straight-arm throw, the thrower directly facing the target and raising the arm holding the ball behind him until very nearly at right angles to the body, which is bent forward, the foot farthest from the ball being well in advance of the other. At the throw the hand holding the ball swings down and forward, the ball leaving the hand just as the latter passes the lowest point of its arc.

THE Toss is used by the quarter-back when the ball

goes to a runner whose point of attack is outside of the center. It is merely a quick, short throw, and should whenever possible be made with both hands.

THE LONG PASS is made by center straight into the hands of the back who is going to kick, or, in case of a try-at-goal from placement, into the hands of the player who is to hold the ball for the kicker. The long pass has superseded in recent years the former method of passing with quarter-back intervention and is a gain in time and certainty. The center should assume practically the same position as for snapping back, being careful to find a firm balance. He may bend a little lower, since it is necessary for him to see perfectly between his legs the player to whom the ball is going. He should hold the ball away from him as far as possible without cramping in order to obtain a long swing, its farther end resting lightly on the ground and the nearer end being held by the hands on either side, the ball being poised at an angle of about 45 degrees. When the pass is to be made the ball is lifted slightly, swung forward to the limit of easy reach and then back sharply, being released as the hands reach the limit of their pendulum-like swing. The center should make his observations before sending the ball away, and must not attempt to watch its flight as all his attention will be required for his opponent. The distance between center and kicker will vary from 10 to 15 yards, and in order that the ball shall cover that distance quickly it is necessary that its line of flight be as direct as possible. Hence the center's aim

should be to pass the ball to the kicker with the least trajectory and the fewest possible revolutions on the shorter axis. The price of success is constant practise.

HANDING the ball is done by the quarter when a back plunges at the center of the line. Here, again, both hands should be used, and the ball should be placed against the back's body wherever he can best hold it, usually against the groin.

CATCHING.—There are several methods of catching the ball. Two of them are good, the rest are not. These two may be called respectively the elbow catch and the groin catch.

THE ELBOW CATCH should, as a rule, be used when the ball is to be carried for a run. In this the ball is caught on either side in front of the elbow, the arm being under it. The other hand is clasped sharply over it as it lodges. The ball is then in a cradle formed by the arm, the side of the body and the two hands. To secure it for a run it is only necessary to tuck it back quickly.

THE GROIN CATCH, as its name signifies, is made by letting the ball drop to the groin, securing it there with both hands and bending the body over it. For a plunge through the line the ball is then in good position; while for a punt it can be easily handled.

The player himself, however, will have to determine by experiment which style of catch he can use to the best advantage. But he should guard against making the catch against the chest, which is an uncertain mode, as the ball is likely to bound away from the body before



A PLUNGE OUTSIDE OF TACKLE.

the hands can be hooked about it or go through them to the ground. Experience seems to show, also, that the chances of misjudging the ball when taken against the chest are greatly increased; while it is certainly not in a position to resist a hard tackle by an opponent. Remember that you can not be tackled by an opponent who is off-side until you have touched the ball; therefore don't reach up for it; keep your arms down and wait until the ball has lodged against the groin and then hook it sharply and hold on for dear life, doubling your body over it. If you do that the fiercest sort of a tackle will fail to lose you the ball.

Kicking

Of recent years kicking has increased in importance with every season, which is as it should be, since the football was intended to be kicked, else it might as well be filled with sawdust or rags as with air. Every player should know how to kick, although as a general thing only the four members of the back field will be called upon. The quarter-back, the two half-backs and the full-back should be good punters, drop-kickers and kickers from placement. If, however, besides these there is a good kicker in the line no harm is done; no team has ever yet suffered from having too many good kickers in its ranks.

The best way to learn how to kick is to kick. To kick it is necessary to strike the ball with the foot. The

beginner will find that this is not nearly so simple as it sounds. Begin by putting the ball on the ground and kicking it about without taking it into the hands. If you can find the side of a tall building to receive the ball and bound it back to you you will be saved a lot of chasing. But don't essay punting or drop-kicking until you are able to send a good straight ball for a considerable distance. When you have learned that accomplishment try punting.

PUNTING.—There are two methods of punting, the straight kick and the side kick. So long as you do it well it doesn't matter which method you use.

THE STRAIGHT KICK is made with a straight upward swing of the foot, the kicker directly facing the place where the ball is to go. Stand with the right leg back, the knees slightly bent and the body inclined a little forward. The position should be well balanced and perfectly easy. Hold the ball in both hands, with its ends pointing to and from the body and the lacing upward, about the level of the waist. Take a short step with the left foot, drop the ball and bring the kicking foot sharply forward so that it will strike the ball when about knee high. The ball should be struck squarely with the instep. In dropping be careful not to alter the position of the ball. Begin by kicking easily and increase the force of the kick as you gain certainty and quickness. The whole leg should be used and not merely that portion of it below the knee. Let the hip be the axis and swing the whole leg forward with muscles taut and toe

pointed, thus getting the benefit of the abdominal muscles. As the leg rises toward the ball lock it at the knee.

THE SIDE KICK is an attempt to put the weight of the body into the swing of the leg, which, instead of being a straight forward and upward motion is outward as well. Unlike the straight kick the side kick can not be made from the position in which the ball is caught, but necessitates two or three steps to the right and forward, the ball being dropped at the right of the center of the body and the leg brought around like a swinging blow with the arm, ball and instep meeting about 18 inches from the ground.

The angle at which the ball is to be kicked can be regulated by raising or lowering the forward point or by dropping the ball so that the height at which it is struck by the foot shall regulate the direction. Thus a high kick may be made by dropping the ball so that it is struck by the foot when knee high or over, and a low kick by allowing the ball to get nearer the ground before meeting the foot.

HOLDING THE BALL.—For the straight kick the ball may be held in any of the following ways:

1. POINT UP.—Left hand over the upper end of the ball, right hand under the lower, ball pointing almost straight up and down but lower end being a trifle nearer the body.

2. POINT OUT.—Hands on each side of the ball, lacing up, side seams at an angle of about 50 degrees, outer end a trifle higher than inner.

3. POINT DOWN.—Same as 2 save that slant of ball is reversed, inner end being higher than outer.

For the side kick the first method of holding the ball is generally considered the best, although all three methods are used.

When a back receives the ball from the center or quarter for a kick he should not toss it in the endeavor to get the lacing uppermost. "Juggling" is unnecessary and may lose him possession of the ball. Having received it in both hands, he should keep a firm hold on it and merely by turning it, hands and all, bring it into position for kicking.

DROP-KICKING.—In the drop-kick the ball is dropped on its end and struck with the toe just as it begins its rebound from the ground. The part of the ball at which the kick is to be made depends largely on the elevation desired, as does the manner of holding and dropping it. For the beginner the best hold is probably that in which the ball is clasped at each side, lacing up, the longer axis passing about parallel with the line of the body when in kicking position. Be careful to allow the ball to begin its rebound before kicking it.

KICKING FROM PLACEMENT.—In a place-kick at the kick-off a depression is usually made with the heel and the ball set in it and aimed by the kicker. In a place-kick at goal the ball is held by one player and kicked by a second. The success of the effort depends about as much on one as the other.

The holder should lie on his stomach, the upper part of his body supported on his elbows, and should be perfectly comfortable. The rules allow the holder to be off-side or even out of bounds if necessary. The fingers of the right hand should be placed under the lower end of the ball and two fingers of the left hand over the upper end. The ball should then be aimed in obedience to the kicker's directions, the matter of "cocking" depending on several things, such as the distance from goal, the direction and velocity of the wind and the kicker's preference. In placing the ball on the ground the fingers under the lower end are removed and every care should be taken in doing this not to alter the position of the ball. Be careful not to allow the ball to touch ground until the kicker gives the word, else the kick will probably be spoiled by the opponent's charge.

The kicker should use all care and deliberation; there is no rule defining the time which may be taken in making a try-at-goal, beyond the general one prohibiting unnecessary delay, so there is no reason why the kicker should fail at the try from want of time. Most kickers try to boot the ball with the toe just under the lacing, but there can be no hard-and-fast rule as to this, since much depends upon the way the ball is canted. This is equally true of approaching the ball; many players stand as much as 6 yards away and take as many steps before kicking, while others are content with one long step before kicking.

Using the Body

BLOCKING.—In blocking the position of the body is everything. The general rule is that the toe of the rear foot should be on a line with the heel of the front foot, yet this rule should be modified to fit the requirements of the individual player. The result sought for is the strongest position possible; one that will allow you to remain steady against the pushing and pulling of the opponent and at the same time allow you to move in any direction readily and forcibly. Find what this position is in your case and then stick to it. Above all, don't stand back on your heels; forget you have any; and don't straddle; if you do you'll find yourself anchored. Face your man squarely, keep as close to him as you can, follow every movement he may make. Remember that you have this advantage over him: that while he must keep his eyes on the ball you are free to keep your eyes on his. Follow the game of the fencer and sparrer and watch your opponent's eyes and not his arms or legs.

Play low. Stand with the knees well bent, the body forward and the head up. Strive to play lower than your opponent, yet not so low that he can pull you off your feet and go over you. If you are low he can not strike you in the chest. When the ball is snapped plunge into and under him, shoulder against groin, and lift him up and back. If the play is through your position, don't merely put him out of the line, put him away out; make the hole as broad as possible and see that he doesn't get

back into the play. Avoid getting your body too far in advance of your feet; keep your feet under you so that you can work in any direction and be on the jump every instant. Always block away from the play; that is, if blocking a guard for a run outside of tackle put your opponent inside of you so that he will have to go around you in order to reach the runner.

BREAKING THROUGH.—Just as the primary object of the offense is to guard the runner until he is free of the line, so the primary object of defense is to capture the runner before he has reached the line. To do this it is necessary to break through. The position should be that best adapted to the individual. In most cases the crouching position, one foot braced firmly behind the other and one or both hands steadying the body on the ground, after the manner of the “kangaroo start” of the sprinter, yields a quicker attack. Keep yourself at arm’s length from your opponent, watch the ball and go through the instant it starts. With experience comes the ability to keep the eyes on the ball and yet know every instant what your opponent is doing; until that ability is yours give your attention to the ball first, for the ball is what you are after; the opponent is of secondary consideration.

When the ball is snapped go through on the instant and avoid the opponent; don’t let him stop you and don’t stop yourself to try conclusions with him; your place is where the ball is. Observe your opponent’s play, try to find out what he is likely to attempt and gov-

ern your own play accordingly. Be snappy but not "scrappy"; aggressiveness is half the battle, but anything that draws your attention from the ball while on the defense is a good thing to avoid. Vary your methods from time to time, go through with stiff arms to meet interference and don't circle wider than possible. The methods of breaking through given below do not nearly exhaust the possibilities.

1. Strike the opponent on the chest with both arms stiff. This will unsteady him and you can go by on either side.

2. If the opponent's chest is not exposed, play low yourself and at the instant of the snapping of the ball bring both hands up and forward as forcibly as possible, striking the opponent with open hands high on the chest. This should disturb his balance long enough for you to get by.

3. Spring to one side and clutch the opponent's outside arm. Usually in trying to free himself he will drag you forward and through.

4. If the opponent is playing very low put both hands on his neck and pull him forward to one side.

5. If the opponent plays very high dart under his arm.

6. Make a feint as though to go on one side and then quickly go through on the other.

7. Strike the opponent on the shoulder with both arms extended stiffly. If he gives on that side, follow through; if he meets you, the outer arm is exposed.

8. Try to throw him off his balance by knocking his lower arm down by a quick, hard blow with both of your arms held close together.

TACKLING.—There are two kinds of tackles, the lift and the dive. In the former the tackler gets within reach of the runner, pins his knees together, lifts him off his feet and throws him backward toward his goal. In the dive tackle the tackler runs to within his own length of the runner and then dives for him, aiming for a point between hips and knees. He should grasp tightly and not let go until the runner is down. In making the dive tackle from the side care should be taken to get the body in front of the runner, blocking his progress, and to lock his knees together, so bringing him down promptly. Tackle low and hard every time. Ability to tackle well and surely is one of the hall-marks of a good player.

CHAPTER VI

POSITIONS AND HOW TO PLAY THEM

The Center

THE center is the pivotal position of the team. With a poor center the strongest team will fall to pieces. The position is possibly the most important and absolutely the most thankless. The center rush has more petty annoyances to contend with, receives more hard knocks and has fewer opportunities for spectacular playing than any other member. Bear these facts in mind when the selection of a man to fill this position is to be made. The ideal center would be a man who combined the physical qualities of weight and strength and activity with the mental qualities of coolness, alertness, good humor, combativeness and self-control. But the man who possesses all these things and knows besides how to play his position is a *rara avis*.

The center should be steady on his feet, and for this reason the nearer to the ground his weight is the better. For the same reason he should be particularly strong in the back and legs. He must have brains as well as brawn, good nature as well as fighting qualities, for in

the opposing center trio he faces three men each of whom is always on the alert to spoil his play or try his temper. If the center has speed he is still better fitted for his position.

ON OFFENSE.—The center should find for himself what poise is best adapted to his case. When he has found it he should practise it until he is able to keep it against any ordinary pushing, jostling or lunging. Since he may not, while on the offensive, make use of his arms to maintain his equilibrium, too much practise of this sort can not be had. He should stand with feet well apart, one foot placed behind him from 16 to 20 inches to act as a brace. He should learn to stand as well with one foot back as with the other and should vary his position in this respect frequently during a game, unless, which sometimes happens, the quarter-back has a preference for one position. In snapping-back the center's back should be about parallel with the ground, his head up, however, in order to watch the movements of the opposing forwards. His knees should be bent sufficiently to allow him to reach the ball comfortably, yet not so much as to make a quick start impossible. His balance must be so nice that he can not be pulled forward on to his knees or sprawled backward, no matter how fierce or unexpected the attack.

The matter of snapping back the ball is one for the center and quarter to decide upon. These two players should practise the work on every possible occasion and after trying all methods and styles decide upon the the

which best suits them. Accuracy is the first desideratum; speed the second. Practise snapping back until it becomes a machine-like process with not one fumble in twenty tries. Even then there is no knowing what may happen in a contest, for snapping back is a difficult trick when the opposing center is doing all in his power to wreck your play. One thing there is, however, that the center may and should do, and that is insist upon being allowed to get the ball away without interference. The Rules declare that "the snapper-back is entitled to full and undisturbed possession of the ball." (Rule 16, *a*.) A good referee will see that this rule is enforced, so don't hesitate to call his attention to the slightest infringement of it.

The ball snapped, the center should get into the blocking instantly. There must be no hesitation on his part. He should decide beforehand in what way his opponent is to be handled and then make the act of snapping back and blocking as nearly one movement as possible. For this it is necessary that he play constantly upon his toes. He may lunge into his opponent, carrying the latter straight before him; he may turn him to right or left; he may bring him to earth if playing too low or he may get under him, if the contrary is the case, and lift him up and back. But the center must keep his feet and must pattern himself as closely on a streak of lightning as he can. Once past his man he should be—and very often is—able to get down the field under a
bra,

ON DEFENSE the center may play a few inches farther back, without, however, getting too far from the opposing center; for while he is primarily responsible for gains made on either side of him, yet his prey is essentially the opposing snapper-back, and it is to the latter he should direct most of his attention. He should "keep him guessing" every second until the ball is in play and then go at him like a flash. If once or twice during a game he succeeds in throwing his opponent back on to the quarter he has earned almost honor enough. Failing this, it is possible for him to pull the opponent forward and go over or by him, or to turn him to right or left. Or, if he has been playing high, the defense center can get under him and push him back, in this way often bringing a play to grief by spoiling a pass. When the opponents are going to kick the center should use all his efforts to spoil the pass or block the kick. He should let the guards spread out and seize his opportunity to get through.

The center should be answerable for the generalship of the center trio; he should keep himself and the guards cool, steady and cheerful; he should not be satisfied with putting his weight alone into a play but should use his muscle and his brain besides; he should be ready to play the next position as well as his own; to be entirely successful he should be versatile—that is, capable of doing a thing several different ways and so bewildering his opponent; he should see that the ball is played from the right spot every down and when the opposing center has the

ball he should keep beside him when the ball is being brought to the 25-yard line in order to prevent an unexpected play; finally he should keep his temper under all circumstances.

The Guard

For the guard a man with activity and weight; weight is essential, but activity doubly so.

ON DEFENSE he has two openings to look after, that between himself and center and that between himself and tackle, the latter being his most important charge. But in attending to this opening he must take care not to be drawn out and thus weaken the center of his line. The guard should be the most effective charger on the team. On his toes, feet far enough apart to insure perfect balance, shoulders low, arms hanging free, the guard should watch the ball and his opponent as a cat watches a mouse. The instant the ball is played he should charge, putting every ounce of weight and strength into the effort and moving like a flash. Theoretically he should move forward coinstantaneously with the ball; practically this is not possible, save by an occasional chance, since he must see the ball in motion from center to quarter before he can move himself. And he must beware of making a false start and so acquainting the opponent with his real intentions, although a "fake" start will sometimes work for his good by deceiving the opponent. The fundamental law of defense is to stop

the runner *before* he reaches the line, not after he has reached it. The line once reached, the runner is practically certain of a gain. Therefore it is necessary to stop the runner behind the line before his interference has formed in working order and before the weight of the team is behind him pushing him forward. And to the guard and tackle this duty falls. Again speaking theoretically, it is the guard's work to break through and reach the quarter before he can pass. Practically he will not succeed at this once in fifty attempts. But his work doesn't stop there; if too late for the quarter he must try for the runner; come what may, he should break up the interference in so far as it affects the center of the line.

The inexperienced player, however, should be warned against defeating his own end through over-anxiety. He must remember that his place in the line must be defended against assault before he is at liberty to leave it and break through; otherwise the play may be directed against the position left open. The opposing guard will sometimes let him go through merely to get him out of the way, in which case, it is safe to say, his value to the team as regards that particular scrimmage is somewhat less than 0. The beginner, therefore, should temper zeal with caution. Only experience—an experience notable maybe for many mistakes—can teach him to recognize instantly the moment when resistance against attack may give place on his part to the effort to break through.

ON OFFENSE the guard's first duty is to protect his quarter until the pass is made, blocking hard so that the opponent can not reach the runner. His next duty is to either make the opening, if the play is within his jurisdiction, or when the play is on the other end of the line to protect the runner from tackles from behind. He should always get into the interference if possible, as his weight and strength if combined with a fair amount of speed will enable him to do much either by bowing over advancing tacklers or by pulling the runner along for gains after he has been tackled.

It may be that he will be called upon to leave his position and get into the interference for a run on the far side of the line. This necessitates the quickest kind of a start, yet it will not be possible for him to take any poise different from his usual one lest his opponent should surmise his intention. He must stand about as ordinarily, block sharply, and then leave his place quickly. Usually a long step backward with one foot and a sharp turn will prove the most effectual method, but the guard will have to discover for himself what method best suits his case. But every effort should be made to conceal the play from the opponent. A deal of practise alone can make such a play a success, while without cool judgment on the part of the guard it had much better be left carefully alone. When the guard leaves his position it becomes the tackle's duty to look after the opposing guard and prevent his following. The guard will sometimes be drawn back to take part in a tandem play, in



A RUN AROUND THE END.

which case he practically becomes a back for the time and should follow the back's methods.

The Tackle

The tackle is the team's Jack-of-all-trades. He is "soldier and sailor too"; or, to leave Kipling and metaphors alone, he is at once forward and back and must take his turn at playing every style of play and meeting every kind of trick. On one side he has to help the guard block the plunges at the center; on the other side he must work smoothly with the ends on plays between them or around them. So much for defense. On the attack he must run with the ball while a tired back regains his breath, form into fast interference, become one of the components of a tandem and, under a kick, try to beat the end at his own work and get down the field before him. The tackle has his work cut out for him.

He should first of all have a clear, active brain, be willing to do his own share and some of everybody else's, be strong, quick as a weasel and have plenty of weight well distributed. Stockiness is a prime factor in the make-up of a good tackle.

ON DEFENSE.—It is impossible to lay down any hard-and-fast rule for the tackle's guidance as to the distance he should stand from guard. Everything depends upon the play he is to meet. If he allows himself to be drawn out too far he will find himself blocked out of a

play at center; if he hugs his guard too closely a play inside end will get by him nine times out of ten. He must watch the opposing tackle, and to a lesser degree, the opposing end. Remember that they know what the play is to be; study their movements; above all, remember that the longer the line is the weaker it is. There are times when it is best for the tackle to play up in the line and times when a position a little back of it will be better. Be always on the alert, don't get anchored, keep your opponent guessing and watch the ball. The instant it is snapped get into the game. First put your opponent out of the way so that in case the play is between you and guard you may have a chance at the runner as he goes past. To do this drive him back; all you need is an instant; when you have it act quickly and tackle low. If the play is outside you get through, putting your opponent out of the game long enough to secure a momentary respite from his attentions. Remember that if the play is to be stopped for no gain it is necessary for you to reach the runner, or, failing that, to pile up the interference before the runner has turned in toward the line. To defeat an end play it is necessary that tackle and end work together like a machine.

When the play is toward the other end of the line the tackle should go back and get in front of the play. When the attack is directly at his position the tackle should meet it stiffly and if possible shove it back; failing that he should go down in front of it and pile it up,

relying on the secondary defense to hold it there. When the opponent kicks the tackle should leap into the air with arms extended. If he is fortunate enough to block the kick and the ball bounces back his one aim should be to reach it no matter what happens or who is in the way. If he has kept his eyes on it as he should, he knows the direction of it and its probable location better than any one else.

ON OFFENSE the tackle's first thought should be to make his holes wide and clean; after that he should block low and hard. As a rule he must keep close to the guard, since the center of his line, being nearest to where the play begins, is the most important to protect. Very often he will find himself confronted by a back who has come up into the line between guard and tackle. In this case he must not allow himself to be drawn out. When the ball is snapped he must block one opponent with his arm and the other with head or shoulder. Remember in case your opponent gets by you that you are not yet through with him; follow him up and keep him away from the ball. When his side kicks the tackle should block only long enough to keep the opposing tackle from spoiling the kick and then should get down the field as quickly as his legs will take him.

When the tackle has to take the ball from his position in the line he must keep his opponent in the dark as to his intention until the last moment. What has been said as to a guard's duties when leaving the line applies equally to the tackle in this case. And, like the

guard, when drawn back for a tandem play he becomes for the time a back and should play the back's game.

The End

The end is the free-lance of the team. He is under fewer restrictions as to positions and course of action than any other member of it. Moreover, he has larger territory to cover, is thrown on his own resources more often and receives less assistance. For these reasons he should possess good judgment and the sort of brilliant courage that takes men into tight places—and out again. Besides, he must have lots of speed and endurance and agility. An end need not of necessity have weight, although, all other things being equal, the man with weight is the one to choose, since weight is always a factor in stopping interference. Like the tackle he is virtually part rusher and part back.

ON OFFENSE the end may choose his own position. The usual position is about two yards from tackle and a little back from the line. But wherever the end stands he should not become anchored. When playing in the line the end will find many opportunities to aid the tackle, as when the play is to be made through tackle or end by helping tackle to block off opposing tackle. When the play is to be between guard and tackle the end may himself engage opposing tackle and so cause a diversion that will aid his own tackle in making the hole. When the tackle runs with the ball the end

should look after the opposing tackle and see that he does not follow. Very often, however, the play will require him to block his own man sharp and follow the tackle around, helping him at the turn, steering him into the opening and at the same time protecting him from the rear. When in the line the end should remember to give his attention to the inside man as being nearest to the play.

On kicks by his own team the end should play a trifle farther into the field. Unless he is unusually fleet he should not delay his run down the field by attempting to put out opposing end or backs, but should leave this to his half-back and put all his work into the running. He should study the movements and faces of the opposing backs in order to learn the direction of the ball rather than turn his head at the kick. In most cases it is possible to advise the ends of the direction of the kick by signal. The end should be the first man down the field under the ball. When he has located it and the man who is going to make the catch he should lose no time, but, on the other hand, should be careful not to overrun. Always go down on the player who is to receive the ball from the outside, so that in trying to avoid you he will be forced toward the other rushers. Ascertain that there is no other player near to whom the catcher will be likely to pass the ball. Slacken your pace so as not to overrun. If there is no interference threatening you allow the opponent to catch and start; then tackle hard and watch out for a fumble; perhaps

you've a touch-down coming to you. If when the opponent runs he starts back to avoid you, don't close with him as long as he is continuing toward his own goal, but use every effort to drive him back. Keep within tackling distance, and tackle the moment he begins to recover ground. When the kick is into touch the end should "dog" the opponent watchfully and be on the lookout for side-line tricks.

ON DEFENSE the end is a highly important member of his team. It is his duty to stop long runs around the end of the line and to get into and break up open plays. When a play comes his way his first thought should be to turn the runner in toward the tackle. To do this he should get around the opponent's line at as sharp an angle as possible, with his arms straight in front of him and tightly locked to ward off interference. The moment the turn is begun he should tackle the runner. To do this it will be necessary for him to keep outside of the interference, unless he is certain that his half-back is also turning the interference in, in which case he may go through it. With his man once within reach, a quick, hard tackle is all that remains.

The end should always have his eyes open for a fumble either by his own backs or the opponent's. He should keep out of plays by the opponent in the center of the line and out of pile-ups, his duty then being to watch sharply lest the runner worm through. Above all, he should keep on his toes, watch the ball, and use his wits.

The Quarter-Back

There is a very general theory among football men to the effect that quarter-backs are born and not made. To describe the ideal quarter would be merely to catalogue all the virtues, and use much space. Perhaps it is sufficient to say that he must know the game thoroughly, not merely the rules, but the science and the possibilities; that he must be cool, with the ability to think quickly and act quickly; that he must be "sandy" clear through and possess a positive love of hard work and hard knocks—for he will get plenty of both. Physically the requirements are not difficult to fill. The quarter is generally the lightest and smallest member of the team, not because size and weight are barred, but because the nature of his work requires extreme activity and a certain nervous energy not usually found in large men.

He is practically the captain *ex officio*. His is the duty of running the team and upon him falls more responsibility than upon any other player. From him the rest of the team will very likely take the cue of cheerfulness or discouragement, hope or despair; and for this reason he must always maintain confidence and courage. The team that goes into its final contest built around a steady center and a brilliant quarter is in a good way to win out. About once in three years a born quarter-back bursts into view; the supply is limited.

ON OFFENSE.—In taking the position to receive the ball from center, the quarter should consult first of all the success of the team; that is to say, he should find out by constant experiment what position will enable him to handle the ball most expeditiously and safely, and accommodate himself to it. As has been said previously in this chapter, the method of snapping back the ball should be agreed upon by the center and quarter after every method has been tried; the decision once made, these two players should practise snapping back on every possible occasion; practise makes perfect, and it isn't possible to be too perfect at this accomplishment. Some quarters prefer the position facing and directly behind center, both feet in a straight line parallel to the rush-line. Others stand very nearly sidewise, the left foot about twenty-eight inches back from the right. In this position the quarter has the back field always in sight without turning. The quarter should take the same position for every play, avoiding "favoring" that side of his line to which the ball is going. Whatever position is used it should be one which allows the other backs a good view of the ball. The pass from center through quarter to runner should be made as nearly as possible on one unbroken line; that is, the quarter should not take the ball to him and then pass to the runner, but should speed it on from snapper-back to runner without a perceptible hitch. In case of a fumble quarter should fall on the ball instantly and not attempt to recover it and put it into play. It is better to lose a down than to

lose the ball. The quarter should be equally certain in passing to one side as to the other.

When the pass is to be made to a runner going outside of guard the ball should be tossed, and whenever possible both hands should be used, since more accuracy is so insured. When the runner is making a plunge through the center of the line a hand pass should be made. Remember that the back has no time in this case to handle the ball, so place it where he wants it, that is, against the pit of the stomach, necessitating only a single clutching movement on his part to secure it. Remember, too, that your work is not finished when the ball is out of your hands; follow up the runner; if the plunge is through center steady the runner; if the try is at the flank of the line get into the interference.

When called upon to kick the quarter should wait until the last possible moment before going back to his position, since by so doing he may be able to get the ball away before the opponent has covered his field. On the pass he should catch the ball in his hands and not against his body, as he will be able to get it away much quicker so.

When the quarter is to run with the ball it is highly necessary that his intention be hidden until he has started. The chief merit of this play is its unexpectedness; aside from that it has little advantage over a run by any other back. Therefore he should take his position as usual, receive the snap-back as in any other play and make the turn as if to pass before straightening up.

for the run. The quarter-back must remember that he can not run with the ball unless he crosses the line of play at least five yards from where he received it from the center rush. In other words, he must run at least five yards across the field before he tries to go ahead, and so he must not forget to keep an eye on the length-wise lines when he is ready to run with the ball.

ON DEFENSE the quarter will generally play back; how far back depends on the ability of the opposing kicker. Generally the distance between his position on defense and his line will be from twenty to thirty yards, except when a kick is expected, in which case he will play from thirty to forty yards back. It is better to play too far back than too far forward: in the latter case a long punt may go over his head or a quick end run may get by him. Once past his own 25-yard line he should halve the distance from his team to the goal-line, since a punt is practically out of the question. If a runner breaks through the quarter should not wait for him, but should advance and tackle him as far from the goal as possible, and then hard and sure.

At all times he should be on the lookout for a fumble by the opposing quarter. He should give his signals quickly and distinctly and should see that they are understood. He should keep center and guards up to their work every moment and use every art to keep them steady and to stimulate them.

The quarter should not overwork any one of the backs, unless a gain is absolutely imperative. In that

case call on the surest man. Keep a sharp watch on the opponent's line; study the conditions of the players. If a tuckered-out man is discovered try a play at his position; if a man is playing wide send a play there. As long as gains continue at a certain place, hammer away there; time enough to change when the gains stop.

Some of the qualities that make a first-class quarterback are vividly pictured in this tribute to Rockwell, of Yale, as one of the 1902 coaches viewed him:

"F. H. Rockwell, a schoolboy player who in the early part of the season knocked around on the scrub, about mid-season began to come into the running and before he finished he displaced all candidates ahead of him. He quickened up the entire line, as well as the backs, and this quality stands out as superior to that of any quarter that has run our back teams for many years. He could put a big team up to such a pitch as to have them blowing like porpoises in five minutes, and any one who thinks that an easy thing to do has had very little experience in quarter-back play. Best of all, when he was sending the team fast, his judgment seemed to be most unerring on the plays he ought to use, and where to attack the opposing line. While still on his back beneath the scrimmage, the words of his signals would begin to pipe out, and by the time he was landed on his feet he would be ready for the ball to come. On defensive work, Rockwell was kept up behind the line, instead of going back to receive kicks, and no man had a keener eye for detecting the play of the opponents than

he. His tackling was certain and his ability to keep the big men up to their work was phenomenal. He never fumbled and almost invariably put the ball into the hands of even an uncertain back so that the man could not drop it. Rockwell is only five feet eight inches tall, and weighs a hundred and forty-eight pounds."

The Half-Back

The two half-backs together with the full-back are the principal ground gainers. These three should work together in perfect unison. The half-back may play one of two styles of the game; that is, he may be a "dodger" or a "plunger"; he should not combine the two, since it is seldom possible for him to do both well. A team should have one half-back of each kind.

The half-back should be quick to start, a hard, fast runner, a good dodger and should have endurance and courage in about equal proportions. He must be capable of being sent into the line or around it time after time without rest; he must be quick to think and quick to act. As for weight, a plunging back can stand more of it than a dodger, although the latter should not be so light as to be easily carried off his feet.

ON OFFENSE.—The positions to be assumed by the backs on the offense will depend upon the style of attack, but whatever the formation, they should take up as near as possible the same relative positions as regards each other and the ball, thus giving the opponent no hint of

the point or nature of attack. Every care should be taken not to indicate the direction of the play either by glances, false starts or by leaning. The ability to start quickly is one of the first essentials, almost the most important. No matter how fast a man may be able to run after he is going he will not make a good back until he has learned to start quickly. Starting from a pistol in the hands of a coach is one of the best methods of perfecting himself in this. As soon as the team lines up the half-back should get on his toes and stay there until the ball is snapped. He should stand with one foot behind the other, body and weight forward, much as the sprinter poises himself for a standing start. The instant the ball is snapped he should dig his toes and throw himself forward, recovering his equilibrium by fast use of his feet.

His position must be such as to allow him to run straight ahead, to left or to right with equal facility. Some men will find themselves capable of starting in one direction and of running in that direction better than in another, and this fact should govern their location in the back field; a man who can do better work at left half than at right should be placed there and kept there. Do not expect a man who has been playing at left all season to do as good work if switched over to the other side.

The back who is going at the center of the line should receive the ball against the pit of the stomach and hold it there with both hands; he won't need his hands and he will need the ball. He should keep his

feet and run high if the hole is awaiting him. If it is not he should either hurdle, trusting to go over, or buck it hard. At all events, he should keep his eyes open. Short steps are best, as they enable the back to recover his equilibrium quickly. His legs should be bent as the line is reached, as in this case he is capable of a certain amount of lifting power if it is needed. When the back is to go outside of guard or circle the end he will need one arm for interference and so should carry the ball under the arm farthest from the enemy. He should be able to carry the ball as well under one arm as under the other. The arm not engaged with the ball should be held straight and stiff to ward off interferers; a nice use of this arm will gain many a yard.

In around the end work the back must keep his eyes open and his feet under him. A runner who goes like the wind and dashes blindly into a mass of interference isn't nearly as valuable as a slower man who looks where he is going. In the same way a back who loses his feet the first time he is jostled isn't as good a ground gainer as the less brilliant player who keeps his feet under him and so gives his interference a chance to shove him along. The back must not allow himself to be forced toward his own goal; it is better for him to drop in his tracks without gain than to lose territory. He should not follow so close to his interference as to be unable to clear the interference in case it is upset. He should run low as long as possible—very often he can do so until he reaches the line. The idea in this is to escape detection.

When tackled he should always fall forward with the ball clasped tightly under him. The difference between a forward fall and a backward fall is anywhere from one to three yards. When you are certain that by extending the ball in front of you you can gain the required distance it is well enough to risk it, but as a general rule it is better to sacrifice a yard of territory and make sure of keeping the ball. The ball held in front is usually easy prey for the opponent and a great many games have been won by a stolen ball.

When his side is kicking the half-back should form into defense for the kicker and should block hard.

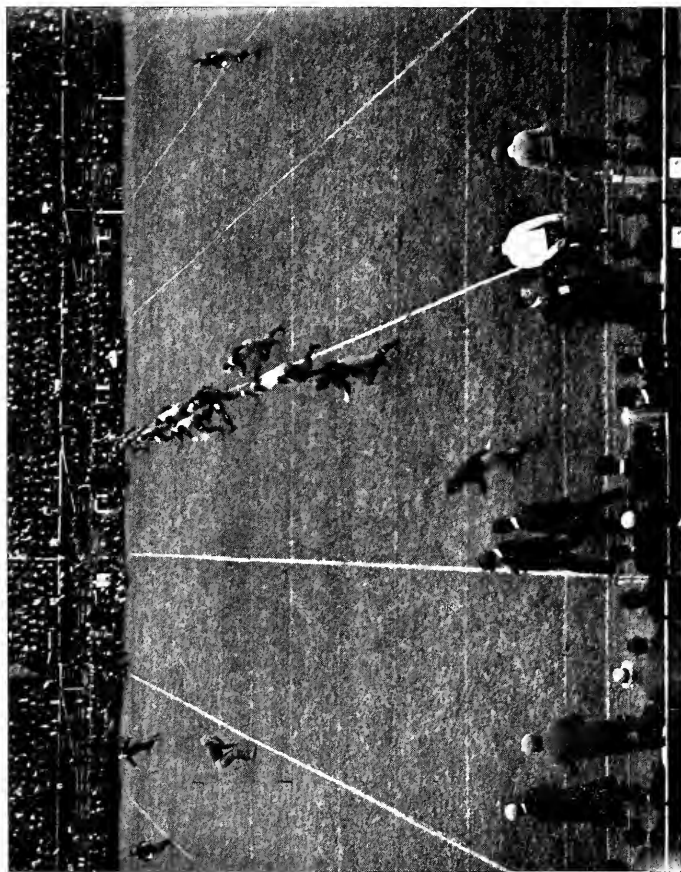
ON DEFENSE the half-back should usually stand behind the guard-tackle hole, from which position he is able to throw himself into a repulse of an attack upon the center of the line as well as to keep a sharp watch on the flank. He will sometimes be called upon to go into the line between guard and tackle or between tackle and end. The back is a part of the secondary defense and should not go through the line. The back should stand high enough to watch the play and as soon as he decides what it is to be should get to it as fast as his legs will take him. In stopping end runs he should never allow himself to get hit but should keep the opponent off with his arms. In stopping a mass play he should try to upset it or turn it aside and not strive to tackle any single member of it. When the other side kicks, either a half-back or the full-back should go up the field to help the quarter. Which is to do this should, of

course, be settled upon before the game, and equally as a matter of course the one chosen should be the surest catcher and best runner.

The Full-Back

What has been said of the half-back will apply very nearly as well to the full-back. His duty is to advance the ball by "bucking" the line, hurdling it or running around the end. He should be equally effective as a hard, speedy runner and a fierce line plunger. If he is also a good hurdler he should be a valuable man for the place. As a general thing his weight may exceed that of the half; if he is to be used principally for plunges at the center of the line he may, in fact, weigh as much as a tackle just so long as he is quick and active.

ON OFFENSE.—From the kicking back of ten years ago the full has developed into a sort of human battering-ram, a man to be depended upon at a crisis, one who can take the ball on a third down and smash himself through or under or over the line for the required distance. He must be a hard, desperate fighter, one whose courage is at once cool and reckless, and a man quick to judge the exigencies of a situation and quick to act upon his judgment. He will often find himself rushing headlong into a line in which the expected hole is not to be seen. He will need his wits then. One thing he must not do, and that is stop. There's a yard to be gained and he's there to gain it. There must be no slacking up, no



A KICK-OFF.

(Yale vs. Harvard, New Haven, 1902.)

hesitation; he must decide what to do between the receiving of the ball and the striking of the line and then do it just as hard as he knows how, summoning every ounce of weight and strength to his aid. If he decides to buck he should get low with head down and use his legs for all that's in them. If he chooses to hurdle he will secure the ball with one hand only, since he will require the use of the other arm in leaping and in balancing his body. Hurdling the line is an art in itself and can be acquired only by practise. It is not as dangerous as it looks from the side-lines, and, when performed by a good exponent of the art, is an almost certain ground gainer. The full-back will sometimes find an opening in the line which while not clean enough to allow him to go through on his feet is yet big enough to take him head first. In that case he should dive, launching himself forward much as a base-runner does when about to slide for the bag.

The full-back who can take part in the kicking is a valuable player, since because of his weight and size he will naturally possess the strength to make long punts.

ON DEFENSE the full-back is an important member of the secondary line.

CHAPTER VII

SIGNALS

SIMPLE SIGNALS BEST.—Signals are intended to convey information and not to cause brain-fag. Therefore make your signals simple; mystify the other team, not your own. Some players may be able to work mind and body hard at the same time, but most are not. For practise a two-number system will answer; even when you meet the enemy three numbers should serve as well as five or six.

Your system, once decided on, should be learned thoroughly by every member of the team. Signal drill may be given indoors a couple of evenings a week as supplementary to the regular outdoor work. The team ought to become so well acquainted with the signals as to comprehend them instantly without apparent effort of the mind. When every man knows them thoroughly, as he should, there will be no more frenzied cries of "Signal! Signal!" to the quarter-back, no more false starts and no more ragged interference. More than half the misplays of an afternoon's practise in mid-season may be traced to imperfect knowledge of signals. The remedy is DRILL.

All kinds of systems are possible; you may use let-

ters of the alphabet, words, signs and numbers; you might even manage to get up a satisfactory system of whistling; but in the opinion of most coaches it is simplest and best to make the entire signal code of numbers.

FOR SCHOOL TEAMS and younger players generally the following system will prove all that can be desired, combining as it does perfect simplicity, safety and variety. Begin by numbering each opening on the right of center from 2 to 8 inclusive and on the left from 3 to 9 inclusive. Then number each position as follows: RG 2, RT 4, RE 6, RHB 8, LG 1, LT 3, LE 5, LHB 7, QB 9, FB 10. The following diagram will aid:

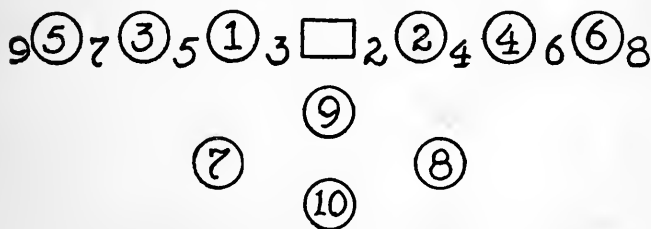


DIAGRAM E.—Positions and openings numbered for signal system.

In giving the signal use three numbers, letting the first be a “bluff” or useless number, the second indicate the player who is to take the ball and the third indicate the opening through which he is to carry it. Thus: the signal called is “5, 8, 6!” The five is the “bluff” number and there only to confuse the opponent; the 8 indicates the right half-back; the 6 indicates the open-

ing between right tackle and end. The signal "5, 8, 6," then, calls for a plunge by right half outside of right tackle.

In case the opponent solves one or more of the signals the entire system may be changed at once by letting the first number indicate the player, the second number be the "bluff" and the third number indicate the opening. The three numbers allow of six variations; at least three of them should be thoroughly mastered by the team.

A MORE COMPLICATED SYSTEM is the following: Number the openings from 1 to 8, beginning at the left

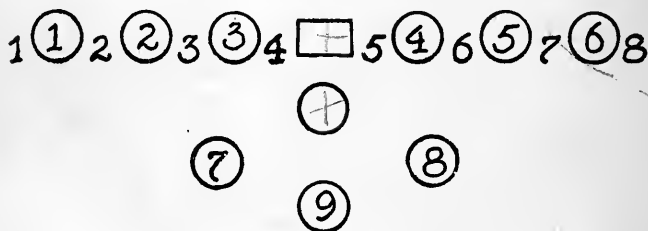


DIAGRAM F.—Another arrangement of numbers.

(Diagram F). Number the positions from 1 to 9, working from left to right. Use three numbers in the signal, one of them being a "bluff" number. Supposing the "bluff" number comes first; then let the second digit of the second number indicate the player who is to receive the ball and the second digit of the third number the opening.

Thus: If the signal called is "23, 39, 15," 23 has no meaning, 39 indicates the full-back and 15

indicates the opening between right guard and center. In this system the quarter-back is not numbered, but any number above 50 and under 100 would indicate that he was to advance the ball; thus, "17, 56, 22" would call for quarter to take the ball for a dash into the line outside of left tackle.

In either of the above systems the "bluff" numbers may be increased to two, three, or even four if desired. Ordinarily one "bluff" number is sufficient and little is gained by adding more. The danger of confusing your own team is the first thing to guard against.

In each of the systems a kick may be indicated by any number over 100.

Any formation other than the regular one should be called for by the quarter before he gives the signal, as "left tackle back!" "right guard back!" "left end and tackle over!" etc.

If a starting signal is desired it may be included in the number signal in a variety of ways, but it is of dubious value, since, once discovered, it gives the opponent a tremendous advantage.

SEQUENCES, that is to say a number of plays which can succeed each other without signals, are of value. They should not, however, as a rule comprise more than three plays, and should be used sparingly.

The quarter should give his signals plainly, loudly and commandingly and once only, unless called upon for a repetition by one of his side. After the signal he should get the play off as quickly as possible.

CHAPTER VIII

THE TEAM

THE members of the team having been taught to play as individuals, the next duty is to teach them to play in unity. Team-play is the concerted action of eleven men having the same object in view. It is the final accomplishment and a difficult one to teach, but without it the team is a ship without a rudder.

Offense

PLAN THE CONTEST.—Every important contest should be planned beforehand by captain and coaches. In so doing everything should be taken into consideration; weather, wind, condition of field, strength of your team and strength of the enemy's. By keeping track of the opponent's work in preceding games it is not difficult to surmise very nearly what style of offense you will be called upon to meet and what manner of game will succeed best against him. Map out your battle accordingly, deciding what line of action is to govern the day, and what is to be done under certain conditions. This is generalship. Good generalship has won many a game before the toss-up.

Whatever plans you may lay out for the opponent's

undoing be guided by the rule that "straight football" is the basis for every successful attack.

STARTING THE GAME.—At the kick-off let the kick be made by the best kicker irrespective of position. Place the ends on the wings of the line, two swift backs in the center and keep the surest catcher at the 40-yard line to look after a return punt. (Diagram B.) The team should know beforehand the direction of the kick; this information can be conveyed to them by the captain by means of prearranged signals. Every man save the one nearest goal should get away instantly as soon as the ball is kicked.

Kick as far as possible without kicking the ball into touch or over the line; although there are certain conditions under which the latter may be desirable. If you kick into touch you will have to do it over again; if you do it a second time the ball goes to the opponent for a kick-off. It is better to let the opponent have the ball near his goal than to have it yourself near your own goal. If the ball is kicked over the goal-line it goes to the opponent on his 25-yard line for a free kick. If the opponent is known to be weak at kicking and possession of the ball is desired a kick over the goal-line will probably restore the ball to you at about the middle of the field. However, the result of such an attempt is at all times uncertain.

It is the duty of the ends to stop the return of the ball by tackling the catcher of it. This is so of the other players as well, but the ends, because of their speed,

stand a better chance to succeed. Failing to stop the man with the ball, the ends should drive him toward the middle of the field, where the other players of their side are ready to break up the interference and get him.

THE SCRIMMAGE.—When the ball is down it must be put in play either by snapping it back or kicking it forward. The latter means is seldom used, since it almost invariably means loss of the ball. There are three methods of advancing the ball from a down, i. e., Direct Attack or “straight football,” Indirect Attack or trick play and Kicking.

DIRECT ATTACK should form the basis, as has been said, of every offense. Direct attack represents force as opposed to strategy and is more easily executed than indirect attack, since it is simple both in formation and execution and does not entail mental as well as physical exertion. The following examples of direct attack are mostly “standard” plays and are as simple as they are effective. It must be remembered, however, that in these as in all other plays success lies in the perfection of execution.

LEFT HALF-BACK BETWEEN GUARD AND CENTER ON HIS OWN SIDE.—This play is from ordinary formation—that is, a formation where the seven forwards are in the line, the quarter-back is close behind center, the half-backs about three yards back of the line and just outside of guards and the full-back about four yards back of the line and directly behind quarter. The ends play in the line about one and a half yards from the tackles.

At the instant the ball is snapped LH, RH and FB dash for the center-guard hole on the left of the line. At the same instant C lifts his opponent back and to the right, LG lifts his opponent back and to the left, thus forming the opening. The ball goes to LH on a hand pass from Q, who steadies him as he strikes the line *at full speed*, head down and ball clasped with both hands to his stomach. FB and RH follow him closely and push with all their might as he reaches the hole. They should be careful to apply the pressure below the waist and not above it, since what is wanted is to keep the runner on his feet and not push him down. When the ball is snapped RE and LE pass through the line outside of tackles to interfere for the runner in case he gets through. RT goes through between guard and tackle for the same purpose. QB follows the play, pushing behind FB and RH. Don't stop pushing until the last inch is gained. The same play may be made by RH on his own side or the opposite side and by LH on the opposite side.

LEFT HALF-BACK BETWEEN GUARD AND TACKLE ON HIS OWN SIDE.—Formation as in previous play. At the instant the ball is put in play LH, FB and RH dash for the guard-tackle hole on the left of the line. LT lifts his man out and to the left, LG lifts his man out and to the right, making the opening.

LH receives the ball from QB when about a yard from the line on a short pass, clasps it to his stomach and plunges between guard and tackle with head down.

FB, RH and QB follow behind and push him forward.

LE leaves his position the instant LH reaches the line—his duty until that time being to prevent attack from his end—and goes through outside of tackle, putting out the first man behind the opposing line.

RT and RE go through guard-tackle and tackle-end holes to interfere for the runner if he gets through the line.

This play can be made by LH on the opposite side and by RH on his own and opposite side of the line.

LEFT HALF-BACK AROUND HIS OWN END.—Preceding formation. At the instant the ball is snapped LH, FB and RH start for the left end of the line, LH receiving the ball on a long pass from QB after he has started and while at a point about back of LT. LE forces his man in toward center, while LT must see that his man does not get through to tackle the runner.

RH and QB take a course parallel to LH and FB, but nearer the line passing inside of LE and seeking to get through in time to interfere for LH as he goes down the field. FB follows and protects the runner from the rear.

RT and RE get through inside their men to join the interference, their especial duty being to repulse attacks from the opposing backs. This play may be made around either end of the line by either half-back.

FULL-BACK BETWEEN CENTER AND RIGHT GUARD.—For this play a slightly different formation is used.

Half-backs stand directly behind guards about three yards back; full-back stands four yards behind center; ends stand one yard back from the line and a yard and a half outside of tackles.

At the instant the ball is snapped FB, LH, RH, LE and RE dash for the center-guard hole. LH goes first, clearing out the hole made by C and RG, and putting out the first opposing member of the secondary defense. FB receives the ball from QB at a hand pass, holds it with both hands against his stomach and follows close behind LH. LE, RH, RE and QB go in behind FB, putting all their weight against him. LT goes through inside his opponent without stopping to block and goes down the field ahead of the runner as advance interference. LG and RT must see that the opposing forwards do not break through before FB reaches the line.

This play may be made through the left of the line as well.

Straight plays with any one of the backs holding the ball may be made through any hole in the line; consequently there are as many straight plays as there are holes in the line, that is eight. In the same way, straight wedge plays may be directed against any position in the line from tackle to tackle.

Plays in which a line man is brought back either to head the interference or carry the ball may rightfully be classed as straight football.

INDIRECT ATTACK.—In this strategy forms the basis of the plays. The attack appears to be directed at one

point, but concentrates at another. Trick plays were in their zenith from 1892 to 1895. Of late years the tendency has been rather toward straight football. The number of trick plays possible is practically unlimited; a coach or captain can readily evolve them for himself, the only things necessary being a pencil, paper and a thorough knowledge of the Rules. There is just one way, however, in which to decide upon the merits of any play, and that is to watch it in operation against a good opponent.

Examples of the best of strategic plays are the various crisscrosses, the double passes other than crisscrosses, the delayed pass, the scrimmage kick, the half-back run from a kicking formation, the ordinary "fake kick," the quarter-back run after a pretended pass and the quarter-back kick. There are besides several trick plays of more than doubtful respectability, notably that seen on Soldiers' Field, Cambridge, in 1903, when Harvard's opponent secured the ball on a kick-off, formed a wedge formation, tucked the ball under the sweater of one of their number, where it was held in place by an elastic band, and scattered. The player under whose sweater at the back the pigskin was secured romped down the field for something over a hundred yards and was not molested until the goal-line was almost reached. The trick was successful, earned six points, and was allowable under the rules; at the same time it was not good football from any point of view and even its inventor was moved to offer apologies for it.

Trick plays have their uses; many a game has been won by a clever bit of strategy, but not until the way for it had been paved by simple straight football. Four good trick plays at the most will suffice for a team.

KICKING.—Kicking is an easy and practically certain method of advancing the ball, entailing, however, the loss of it by the kicking team. It means hard work for the ends and the man who does the kicking, but light work for the balance of the players. As a method of offensive play its value is greater than that of trick football. Of recent years it has been steadily gaining in use and importance, but even yet the full possibilities of the kicking game have not been displayed.

Let us suppose that teams A and B are very evenly matched on offense and defense. At the kick-off A secures the ball on her 10-yard line, runs it back to her 20 and from there begins a rushing game. She is practically 60 yards from scoring distance. By straight football diversified by an occasional trick she advances the ball to B's 40-yard line, a none too easy performance, and there loses it. B is practically 50 yards from scoring distance of A's goal. Therefore she kicks on first down. There is the possibility that A's backs will fumble. But even if they do not B has gained, let us say, 40 yards at no expense of offensive strength. She has lost the ball, but is in fresher condition than A, and if she can wrest the ball from her opponent will be within striking distance of the latter's goal. If A manages to retain possession of the ball until she has once more

crossed into B's territory it is probable that the limit of her advance will be farther from B's goal than before. We will suppose that B gains possession of the ball on her own 45 yards. Again she kicks on first down and A's back secures the ball on her 25-yard line. Again A is in possession of the ball, but in a territory where possession of it is almost valueless. She is weakened by two long rushes aggregating 75 yards, while B, on the other hand, is in far better physical shape, since she has played almost entirely on the defensive. The chances are now all in favor of B's being able to hold A and secure the ball within scoring distance of A's goal. In which case B's better physical condition will undoubtedly earn a touch-down.

In short, the possession by you of the ball inside your own 30 yards is not so promising of a score for you as the possession of it by the opponent inside his 30.

It is well to plan your kicking game after considering the relative strength of your rushing and kicking ability. The wind enters largely into the question also. If the wind is with you kicks will naturally be more frequent in your game than they would were the wind favoring the opponent, although a strong punter who is able to kick low and long will make the chances very nearly even. If you have not such a punter then it is still possible to rush the distance the wind handicaps the kick and then punt. In the same way you can offset any advantage over your own punter held by the rival player.

As a general rule—to which there are always ex-

ceptions—it is best, rival kickers being nearly equal in ability and the wind being in your favor, to kick on first down when between your 15- and your 40-yard lines; on second down between your 40 and the opponent's 40; on third down from opponent's 40 to his goal. Do not get into the habit of waiting for the third down before kicking; your opponent is looking for a kick then.

Don't kick from directly under your goal. If you do the ball may hit an upright or the cross-bar. Work the ball toward the side of the field on an end run first.

Do not, when kicking from a point back of your own 15 yards, punt the ball straight down the field, as it may fail of the expected distance and go to the opponent on a fair catch within place-kicking distance of your goal. Always kick into touch in this case, thus preventing any run back of the ball.

On the other hand, when kicking from any point better than your 20 yards strive to send the ball straight down the field in front of the opponent's goal.

Once past the middle of the field and into opponent's territory try to send the ball into touch as near opponent's goal-line as possible. A straight kick might send the ball over the goal-line and give the opponent a free kick from his 25-yard line.

Finally the kicker should bear in mind that merely to kick the ball as hard as he knows how is not the first consideration. He should remember that he is kicking for a purpose; he should recognize that purpose and use

his skill accordingly. In short, each kick should be made to the advantage of the team. He should take into account the speed of the ends and the others of the rush-line. There is little gained if a back kicks 60 yards and the ball is run back 40 yards or punted back 50. He must give his ends time to get down the field, elevating his kicks accordingly. Always he should strive to put the ball where it will be most difficult for the opposing backs to get it; by observing the opponent's arrangement of players he will often find a portion of the field poorly covered; or if the opponent has a back who is notably uncertain on catching it will be well to drop the ball in the territory covered by him on the chance of a fumble.

If it is possible to signal the direction of the kick to the rest of the team beforehand it should be done.

Defense

There is a football truism to the effect that the team with a perfect defense can never be scored on, and therefore never defeated. It is a statement worth considering as it gives some idea of the immense value of team defense. At the present day the relative values of defense and offense are practically in the ratio of 3 to 2.

DEFENSE AT START OF GAME.—There is no rule governing the arrangement of players on the kick-off which can be universally applied. The placing of the men will depend on individual ability and style of work. Diagram B shows one method of arranging the field; in many

cases other arrangements will doubtless serve better. The principal thing to strive for is to cover the field in such a way that no matter where the kick-off puts the ball it can be quickly taken and returned, either by punt or run back. In every arrangement it is advisable to place the three heaviest men, center and guards, along the 40-yard line to look after short ground kicks and, when the ball goes past them, to block the first man. The 30-yard line is usually a good position for the quarter. He should watch for short kicks, and in general guard the middle of the field. The end should see that kicks dropping near the side lines do not go into touch. If the tackles come next they will be in position to form into heavy interference for any of the backs, who cover the remaining territory. If either of the three backs get the ball the tackles should lead the way up the field, the other two backs guarding the runner closely and the balance of the players joining the interference as quickly as possible.

Always give the ball a chance to go over the goal-line so that you will earn a free kick from your 25-yard line. Ninety-nine times out of a hundred it is better to run the ball back on the kick-off than to return the kick. If you are playing a kicking game you can kick just as well from a down, unless your line is unusually weak, as on the catch, and you might as well have to your credit what ground you can gain by running the ball back.

DEFENSE FROM A DOWN.—The principles underlying

this are: (1) meet the play before it reaches the line, (2) put more players against it than the opponent can put into it, and (3) strengthen your line by making it compact.

As to the first principle, a moment's thought will convince you of its soundness. The duty of defense is not only to keep the opponent from gaining ground, but to make him lose ground when possible. The latter is more effective than the former. If you wait until a play reaches the line before meeting it you may be able to stop it, but not before it has gained ground. On the other hand, if you meet a play on your opponent's side of the line you will be able to stop it quicker—since it has gathered less momentum—and will not only have prevented gain, but will have stopped the opponent for a loss. A runner becomes harder to stop with every foot of ground covered, since every foot means an increase of momentum as well as an added perfection of interference.

The second principle needs no explaining. If it were possible to always meet a play with more men than the play contained there could be no advance against your defense so long as the two teams were anywhere equal in weight and strength.

The third principle is founded on the fact that it is easier and simpler to protect a territory 15 feet in width than one 50 feet in width. There is always a tendency on the part of the forwards to break through on defense outside of their opponents, thus pulling the line open

and lengthening it materially. As a result the opponent finds lots of holes quite to his liking and has his work vastly simplified for him. A short line of seven men is stronger than a long line of the same number.

HALF-CIRCLE DEFENSE.—The best system of defense on a scrimmage that a school team can use is that which seeks in theory to pocket the opponent inside a half circle.

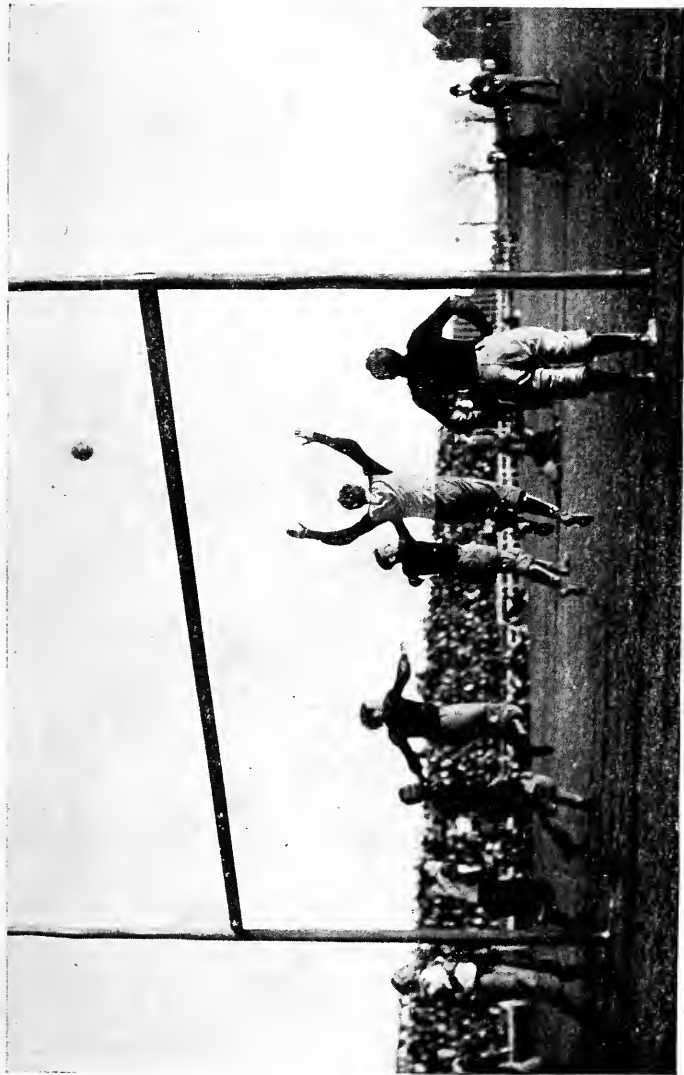
For example: The rush-line is standing in a straight line across the field. To form the half-circle center advances straight ahead one yard, the guards two yards and a trifle toward center, the tackles three yards diagonally and the ends four yards diagonally. The line has now become an arc. Suppose now that all turn toward a man originally standing four yards in front of center and now three yards in front of him. That man, representing the offense, is now in the center of the chord of the arc with the arc in front of him. The members of the circle are somewhat less than two arms' length apart and two of them can reach the man without leaving their positions if he tries to break through. The theory of this system is to tear the offense into fragments, to meet the play on the opponent's side of the line and to have two men meet the runner no matter which way he turns.

THE BACKS are a valuable feature of this defense and must be especially wide-awake and keen to discover the direction of the attack and quick to plug any holes which may appear. The territory to be covered should be dis-

tributed among the three; let one back watch all holes from outside of left end to left guard, another all holes from outside right end to right guard and the third from tackle to tackle. This arrangement should bring two men to the repulse of any attack on the tackle positions. It is, of course, not arbitrary. A weak center will demand a plan whereby two backs can be brought instantly to his relief, while with the opponent playing an end running game the center of the line must be guarded less carefully than the wings.

To TEACH this or any other system of defense it should first be diagramed on the blackboard and each player's duties thoroughly explained. On the field the men should be made to walk to their positions, then trot and then get there as quickly as they know how. The next step should be to introduce an offense which at first offers no resistance. The defense forwards should learn to get by their opponents on the inside and get sharply to their positions. Now let the offense make resistance and finally execute some straight plays. By this time the defense should be in good enough working order to be used in a regular game with the second team.

When the opponent is going to kick from any point between the two 40-yard lines the ends should take positions back of the line and about five yards out from tackle. In case of a fake kick they are then in position to get back and tackle an end runner, and if the kick is really made they can readily get down the field to protect the back making the catch. On a kick by the oppo-



A GOAL FROM TOUCH-DOWN.



nent inside his own 40 yards the ends should join the other forwards in breaking through to block the ball.

Certain plays require special means of defense, as, for instance, a mass formation on center. In this case the center trio should meet the advance with heads and shoulders and use every effort to push the apex in, thus smashing the play and forcing the runner out. The formation once broken, the center trio should prevent farther progress through their positions by falling flat and leaving the runner to the mercies of the men on the wings and secondary defense.

To stop a close mass play it is necessary to meet it hard and low with the shoulders and then drop flat. If you drop without first forcing the play back it will probably pass right over you. These tactics will not answer with a loose mass play. There it is necessary to tear the formation apart and reach the runner. There is no use in throwing yourself in front of such a play.

The same applies to the old revolving wedge and all variations of it. It is necessary to get through the interference and reach the runner.

There is one rule which applies to the stopping of all plays: Watch the ball and reach the runner.

DEFENSE ACCORDING TO TERRITORY.—Once inside its own 20-yard line the team on the defensive is called upon for its utmost efforts. No matter how fiercely and determinedly it has been playing before, now is the time for a desperate rally. Football history shows that the last few yards are at least twice as hard to gain as any

other ten. Every effort should be made by the defense not merely to stop the enemy's advance, but to wrest the ball away from him on every play. The center trio and the back behind them should play for the ball. The guards should take turns in assisting the center to make holes through which the back may plunge in an effort to get the ball if possible, and if not to break up the opponent's play. Remember that the opponent is probably just as tired as you are and more nervous, and play as though fortune were on your side and you knew it.

Watch the short side of the field when the teams are close to the side lines. Try to force the runner into touch and deprive the offense of its first down. When forced into a corner of your territory watch the long side of the field for a dash around that end.

If forced to kick from behind your own goal-line use judgment. If the forwards are through and on to the kicker before he has a chance to get the ball safely away he should make a safety rather than allow the opponent to make a touch-down. It is better to have two points scored against you than five or possibly six.

If kept on the defensive most of the time kick whenever the result of a rush is at all doubtful.

FOOTBALL MAXIMS

Line up quickly. Trot to your position, don't crawl.

When you tackle throw your man hard and always toward his goal.

Don't talk to your opponent during play. Keep your breath and thought for your work.

Don't "slug." It isn't good football. Keep your head and your temper.

Don't offer excuses when criticized by the coaches. Listen to what you are told and play accordingly.

If you miss a tackle don't give up the running. Follow your man and try to reach him again.

Don't wait for the runner to come up to you; go down for the runner.

Get into every tackle in your neighborhood. Don't let go until the whistle blows.

When tackled yourself squeeze the ball and fall toward the opponent's goal.

Be first down the field under kicks.

Don't lose your nerve no matter how badly things are going; if you do they'll go worse.

Finally, watch the ball, play hard and fast and grin whether you win or lose.

VOCABULARY OF FOOTBALL WORDS AND PHRASES

BACK FIELD.—The players behind the rush-line; the immediate territory occupied by them.

BACKS.—All players behind the rush-line.

BLOCKING.—Obstructing the opponent with the body.

BLOCKING OFF.—Protecting a runner from attack by interposing the body.

BODY CHECKING.—A form of *blocking* designed to check the opponent temporarily rather than to put him finally out of the play.

BREAK THROUGH.—To penetrate the opponent's line.

BRING IN.—To return the ball from "touch."

CENTER.—The snapper-back or middle man of the rush-line; also the spot in the field from which the kick-off is made.

CENTER SECTION.—That portion of the field between the two 25-yard lines which is marked longitudinally.

CENTER TRIO.—The center and the two guards.

CHARGE.—To rush forward.

COCK.—To point or cant the ball.

CORKSCREW.—A kind of kick by which the ball is made to revolve with a swaying motion on its short axis during its flight.

CROSS-BAR.—The horizontal bar connecting the two uprights of the goal.

DASH.—A short, fast run; spirited play.

DEAD.—Out of play as refers to the ball. The ball is said to be *dead* when an official blows his whistle; when a goal has been tried for; when a touch-down, touch-back or safety has been made; when a fair catch has been made or when the ball goes out of bounds after a kick before touching a player who is on-side.

VOCABULARY OF FOOTBALL WORDS 103

DEFENSE.—The science of defending against the attack of the opponents. A team is said to be on the defense when the opponents have the ball. A method of play designed to resist attack.

DOWN.—The ball is down when the player having it is unable to advance it farther, and the referee declares it "down."

DROP-KICK.—A kick made by dropping the ball from the hands and kicking it the instant it rebounds from the ground.

END. RUSHER, END.—The last man on either end of the rush-line.

FAIR CATCH.—A catch of an opponent's kick or of a punt-out in which the catcher signifies his intention not to run with the ball.

FAKE.—A trick play in which an attempt is made to advance the ball in another way from that for which preparations are seemingly made. A *Fake Kick* is a run made from a formation intended to make the opponents believe a kick is intended.

FALL ON THE BALL.—To secure the ball by dropping on it with the body.

FIELD KICK.—A try-at-goal from a drop-kick or from placement.

FIFTY-FIVE-YARD LINE.—The seventh transverse line from each goal-line, marking the center of the field longitudinally. The line from which the ball is kicked off.

FIRST DOWN, SECOND DOWN, THIRD DOWN, FOURTH DOWN: See *Down.*—Terms indicating the number of the attempt to advance the ball. If after three successive attempts the ball has not been advanced five yards, the fourth down is reached and the ball is forfeit to the opponent.

FIRST HALF.—The first period of play.

FORWARD PASS.—An unlawful advance of the ball made when a player passes the ball to another player of his side between him and the opponent's goal.

FORWARDS.—Players in the rush-line.

FOUL.—Any violation of a rule.

FREE KICK.—A kick in which the opponent is prohibited from interfering.

FULL-BACK.—The fourth member of the back field.

FUMBLE.—To drop the ball when it is in play.

GET DOWN, GET DOWN THE FIELD.—To go forward toward the opponent's goal, especially under a kick.

GET THROUGH.—To break through the opponent's line in the scrimmage.

GOAL.—The uprights and cross-bar in the middle of the goal-line; the result of kicking the ball over the cross-bar; the territory back of the goal-line.

GOAL-LINE.—The line marking either end of the field and upon which the goal-posts are erected.

GRIDIRON.—The field of play; a term which partly lost its significance with the advent of longitudinal lines.

GROUND GAINER.—Applied to a player who, or a play which, advances the ball.

GUARD.—The player on either side of the center.

HALF-BACK, HALF.—A member of the back field generally used to advance the ball by runs. There are two half-backs, designated as Right Half and Left Half.

HEEL.—To mark a fair catch by digging the heel into the ground.

HELD.—Applied to a player or a team when its progress is stopped.

HOLDING.—Unfair use of the hands in the rush-line.

IN GOAL.—Back of the goal-line.

IN PLAY.—The ball is said to be in play when it may be lawfully advanced by the side in possession; opposed to *out of play* and *dead*.

INTERFERENCE.—The warding off of an opponent from the runner by interposing the body between them; the assistance given to the runner by players of his side.

INTERMISSION.—A period of ten minutes for rest dividing the playing time.

IN TOUCH.—Out of bounds.

KICK-OFF.—The place-kick from the center of the field which begins the play at the commencement of each half and after each touch-down.

KICK-OUT.—A kick made by a player of the side which has made a touch-down.

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LACING.—The leather string which fastens the cover of the ball.

LEATHER.—A term for the ball.

LINE.—The rush-line; any one of the lines dividing the field transversely or longitudinally at 5-yard periods.

LINE BREAKING.—Advancing the ball through the opponent's line.

LINE BUCKING.—Advancing against the opponent's line with the ball.

LINE MEN.—The forwards or rushers.

LINESMAN.—An official who marks the distance gained or lost.

LINE UP.—The taking of position by each team before a play; a list of the players and their positions.

MISS.—To fail to make a catch or secure a runner by tackling.

OFFENSE.—The science of attacking the opponent in order to advance the ball. A team is said to be on the offense when in possession of the ball. A method of play designed to advance the ball.

OFF-SIDE.—In advance of the ball; i. e., between the ball and the opponent's goal-line.

ON-SIDE.—Behind the ball; opposed to *off-side*.

OUT OF BOUNDS.—The ball is out of bounds when it touches the ground on or outside the side line or side line extended, or when any part of the player holding it touches such ground.

PASS.—To throw or hand the ball, specifically from the quarterback to the runner.

PENALTY.—A punishment for transgression of the rules inflicted by the referee or umpire usually involving the loss of territory or of the ball or both.

PIGSKIN.—The ball.

PILING UP.—Falling upon the runner after the referee has blown his whistle, which constitutes a foul.

PLACE-KICK.—A kick made by kicking the ball while it is on the ground, as at the beginning of a period or for a try-at-goal from the field.

PLAY.—An operation for the purpose of advancing the ball or of preventing its advance.

POINTS.—The numerical value of scoring plays as expressed in the score.

PUNT.—A kick made by dropping the ball from the hands and kicking it before it touches the ground.

PUNT-OUT.—A kick from behind the goal-line to a player of the same side.

QUARTER-BACK, QUARTER.—The first member of the back field, whose duty it is to take the ball from the center.

KEFEREE.—The official whose duty it is to judge of the progress of the ball.

RUN.—An advance by a player carrying the ball.

RUNNER.—The player who has the ball during an attack.

RUSHERS.—The forwards.

RUSH-LINE.—The forward line composed of the center, guards, tackles and ends.

SAFETY.—A play scoring two points for the opponents. It is made when a player touches the ball down behind his goal-line, thus relieving the pressure of the attack and acquiring the right to take the ball out for a kick.

SCORE.—To make points against the opponent; the tally.

SCRIMMAGE.—A scrimmage occurs when the teams *line up* and the ball is put in play by the center rush.

SECOND HALF.—The last period of play.

SERIES.—A number of plays which succeed each other according to predetermined order, usually without signals being called after the beginning.

SIDE LINE.—The line marking either side of the field.

SIGNAL.—A message conveyed by voice or motions indicating what the next play is to be; signals are usually given to the team by the quarter-back.

SLUGGING.—Specifically striking with the clenched fist; any intentionally rough playing.

SNAP-BACK.—The act of sending the ball back to the quarter-back by the center rush.

SNAPPER-BACK.—The center rush.

TACKLE.—The player occupying the position in the rush-line between guard and end; to seize a runner.

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TACKLE BACK.—A play in which the tackle is drawn back of the line.

TANDEM—An attacking formation wherein the runner is followed or preceded by one or more interferers in direct line of his body; a play from the above formation.

TEAM-PLAY.—Systematic cooperation of all players, as opposed to individual play.

TIME.—A call by the referee stopping the game.

TIME OUT.—Time taken out at direction of the referee during which the ball is not in play.

TOUCH-BACK.—A non-scoring play made when a player touches the ball down behind his own goal-line, the impetus which carried the ball across having been given by an opponent.

TOUCH-DOWN.—A scoring play made by touching the ball down behind the opponent's goal-line. A touch-down gives five points to the team making it.

TOUCH IN GOAL.—Out of bounds and past the goal-line.

TRICK.—A play designed to deceive the opponent.

TRIPPING.—Tackling a runner below the knees.

TRY-AT-GOAL.—An attempt to kick the ball over the cross-bar of the opponent's goal.

TWENTY-FIVE-YARD LINE.—The fifth transverse line from the goal-line.

TWISTER.—Same as *Corkscrew*.

UMPIRE.—The official whose duty it is to judge of the conduct of the players.

WEDGE.—A form of grouping for interference for the runner.

FOOTBALL RECORDS

GAMES OF 1903

EAST

PRINCETON *beat* Swarthmore 34-0; Georgetown 5-0; Gettysburg 68-0; Brown 29-0; Lehigh 12-0; Carlisle 11-0; Bucknell 17-0; Dartmouth 17-0; Cornell 44-0; Lafayette 11-0; Yale 11-6.

YALE *beat* Wesleyan 33-0; Holy Cross 36-10; Penn State 27-0; West Point 17-5; Columbia 25-0; Syracuse 30-0; Harvard 16-0; *lost* to Princeton 6-11.

HARVARD *beat* Williams 17-0; Maine 6-0; Wesleyan 17-6; West Point 5-0; Brown 29-0; Carlisle 12-11; Pennsylvania 17-10; *lost* to Amherst 0-5; Dartmouth 0-11; Yale 0-16.

PENNSYLVANIA *beat* Lehigh 16-0; Penn State 39-0; Brown 30-0; Bucknell 47-6; Cornell 42-0; *lost* to Columbia 6-18; Harvard 10-17; Carlisle 6-16.

COLUMBIA *beat* Wesleyan 10-0; Williams 5-0; Swarthmore 5-0; Amherst 12-0; Pennsylvania 18-6; Cornell 17-12; *lost* to Yale 0-25.

CORNELL *beat* Hobart 12-0; Rochester 11-0; Colgate 12-0; Bucknell 6-0; *tied* Lehigh 0-0; *lost* to Princeton 0-44; Columbia 12-17; Pennsylvania 0-42.

DARTMOUTH *beat* Holy Cross 18-0; Vermont 36-0; Union 34-0; Williams 17-0; Wesleyan 34-6; Amherst 18-0; Harvard 11-0; Brown 62-0.

CARLISLE *beat* Gettysburg 46-0; Swarthmore 12-5; Bucknell 12-0; Georgetown 28-6; Pennsylvania 16-6; Northwestern 28-0; *tied* Virginia 6-6; *lost* to Princeton 0-11; Harvard 11-12.

WEST POINT *beat* Dickinson 12-0; Chicago 10-6; Annapolis 40-5; *tied* Colgate 0-0; *lost* to Harvard 0-5; Yale 5-17.

ANNAPOLIS *beat* Virginia 6-5; Dickinson 5-0; *lost* to Lafayette 5-6; Penn State 0-17; Bucknell 5-23; Virginia M. I., 0-11; West Point 5-40.

LAFAYETTE *beat* Gettysburg 11-0; Annapolis 6-5; New York 8-6; *lost* to Princeton 0-11; Lehigh 6-12; Dickinson 0-30.

BROWN *beat* Colby 23-0; Wesleyan 11-0; Williams 22-0; Vermont 24-0; Syracuse 12-5; *lost* to Princeton 0-29; Pennsylvania 0-36; Harvard 0-29; Dartmouth 0-62.

AMHERST *beat* Colby 23-0; Harvard 5-0; Union 16-0; *lost* to Columbia 0-12; Holy Cross 0-36; Dartmouth 0-18.

LEHIGH *beat* Dickinson 17-0; Lafayette 12-6; Georgetown 12-6; *tied* Cornell 0-0; *lost* to Princeton 0-12.

ROCHESTER *beat* Buffalo 47-0; Union 17-6; Hobart 16-5. HAMILTON *beat* Hobart 16-0; *lost* to Colgate 5-23. COLGATE *beat* Syracuse 10-5; Hamilton 16-0; Rochester 23-5; *lost* to Williams 0-6; Cornell 0-12. WESLEYAN *tied* Williams 5-5; *lost* to Dartmouth 6-34. MAINE *beat* Colby 6-5; New Hampshire 27-0; Bowdoin 16-0; *lost* to Holy Cross 0-5. HOLY CROSS *lost* to Dartmouth 0-18. DICKINSON *beat* Penn State 6-0; Baltimore Medical 12-0; Lafayette 30-0; *lost* to West Point 0-12; Annapolis 0-5; Lehigh 0-17. PENN STATE *beat* Washington and Jefferson 23-0; *lost* to Dickinson 0-6.

WEST

MICHIGAN *beat* Drake 47-0; Case 31-0; Beloit 79-0; Indiana 51-0; Ohio State 36-0; Wisconsin 16-0; Oberlin 42-0; Chicago 28-0; *tied* Minnesota 6-6.

MINNESOTA *beat* Iowa 75-0; Beloit 46-0; Grinnell 40-0; Illinois 32-0; Wisconsin 17-0; *tied* Michigan 6-6.

CHICAGO *beat* Illinois 18-6; Indiana 34-0; Purdue 22-0; Wisconsin 15-6; Haskell Indians 17-11; *tied* Northwestern 0-0; *lost* to Michigan 0-28.

WISCONSIN *beat* Beloit 87-0; Knox 54-6; Oshkosh 53-0; *tied* Northwestern 6-6; *lost* to Michigan 0-16; Minnesota 0-17; Chicago 6-15.

NOTRE DAME *beat* De Pauw 56-0; *tied* Northwestern 0-0. NORTHWESTERN *beat* Cincinnati 35-0; Illinois 12-11. ILLINOIS *beat* Knox 17-0; Purdue 24-0. PURDUE *beat* Beloit 17-0. IOWA *beat* Illinois 12-0; Drake 22-0; Washington (St. Louis) 12-2; Missouri 6-0; Grinnell 17-0. NEBRASKA *beat* Iowa 17-6; Haskell

Indians 5-0; Denver 10-0; South Dakota 23-0; Colorado 31-0; Knox 33-5; Kansas 6-0; Illinois 16-0. WASHBURN *beat* Kansas 5-0. KANSAS *beat* Missouri 5-0. WASHINGTON *beat* Cincinnati 23-11; *tied* Missouri 0-0. HASKELL INDIANS *beat* Kansas 12-6; Missouri 12-0. INDIANA *beat* Ohio 17-16. OHIO *beat* Oberlin 27-9; Kenyon 59-0. KENYON *beat* Cincinnati 18-0. OBERLIN *beat* Western Reserve 63-0. PURDUE *beat* Oberlin 18-2. DRAKE *beat* Grinnell 32-0.

PACIFIC COAST

CALIFORNIA *tied* Leland Stanford 6-6. WASHINGTON *beat* Oregon 6-5; Nevada 2-0; Idaho 5-0.

SOUTH

VANDERBILT *beat* Mississippi 35-0; Georgia 35-0; Sewanee 10-5. CLEMSON *beat* Georgia Technical 73-0; *tied* Cumberland 11-11. ALABAMA *beat* Tennessee 24-0. TENNESSEE *beat* Nashville 10-0; Georgia Technical 10-0. AUBURN *beat* Georgia Technical 10-0.

SEWANEE *beat* Tennessee 17-0. KENTUCKY *beat* Miami 47-0. MISSISSIPPI *beat* Louisiana 11-0. TULANE *beat* Richmond 18-5. TEXAS *beat* A. & M. Texas 29-6. GEORGIA *beat* Georgia Technical 33-0; Tennessee 5-0; Auburn 22-13. SOUTH CAROLINA *beat* Georgia 17-0; Georgia Technical 16-0; *lost* to North Carolina 0-17. VIRGINIA *beat* Kentucky 6-0; St. John's 48-6; *tied* Carlisle 6-6. NORTH CAROLINA *beat* South Carolina 17-0; Virginia Military Institute 28-6; Clemson 11-6; Virginia 16-0; *lost* to Virginia Polytechnical 0-21. VIRGINIA POLYTECHNICAL *beat* North Carolina 21-0. GEORGETOWN *beat* North Carolina 33-0; *lost* to Carlisle 6-28.

PREPARATORY SCHOOLS

DEAN *beat* Groton 11-0. WORCESTER *beat* St. Mark's 17-0. ST. PAUL *beat* Lawrenceville 6-0. ANDOVER *beat* New Hampshire 27-0; Williston 24-0; Tufts 15-15; Harvard Freshmen 43-0; Yale Freshmen 23-0; Lawrenceville 23-0; *lost* to Exeter 11-14. EXETER *beat* Bowdoin 18-0; Andover 14-11.

RANKING OF PRINCIPAL COLLEGE ELEVENS FOR 1903

(Caspar Whitney in Outing)

1 Princeton	12 Dickinson	23 Exeter
2 Dartmouth	13 Penn State	24 Andover
3 Yale	14 Lafayette	25 Northwestern
4 Minnesota	15 Wisconsin	26 Iowa
5 Michigan	16 Annapolis	27 Notre Dame
6 Harvard	17 Haskell	28 Vanderbilt
7 Carlisle	18 Cornell	29 Missouri
8 West Point	19 Amherst	30 Texas
9 Columbia	20 Brown	31 Colorado
10 Pennsylvania	21 Wesleyan	
11 Lehigh	22 Kansas	

ALL-AMERICA ELEVEN FOR 1903

(Caspar Whitney in Outing)

Mitchell (Yale) full-back

Kafer (Princeton) and Heston (Michigan) half-backs

Witham (Dartmouth) quarter and captain

Rafferty (Yale) and Henry (Princeton) ends

Schacht (Minnesota) and Knowlton (Harvard) tackles

De Witt (Princeton) and Bloomer (Yale) guards

Hooper (Dartmouth) center

SUBSTITUTES

Prince (West Point) full-back

Farnsworth (West Point) and Vaughan (Dartmouth)
half-backs

Johnson (Carlisle) quarter

Shevlin (Yale) and Bowditch (Harvard) ends

Turner (Dartmouth) and Maddock (Michigan) tackles

A. Marshall (Harvard) and Gilman (Dartmouth) guards

Short (Princeton) center

CHAMPIONSHIP GAMES FROM 1876 TO DATE

HARVARD—YALE

- 1876—Yale, 1 goal; Harvard, 2 touch-downs.
1877—No game.
1878—Yale, 1 goal; Harvard, 0.
1879—Yale, 2 safeties; Harvard, 4 safeties. (Tie game.)
1880—Yale, 1 goal, 1 touchdown; Harvard, 0.
1881—Yale, 0 safeties; Harvard, 4 safeties.
1882—Yale, 1 goal, 3 touch-downs; Harvard, 2 safeties.
1883—Yale, 4 goals; Harvard, 1 touch-down, 1 safety.
1884—Yale, 6 goals, 4 touch-downs; Harvard, 0.
1885—No game.
1886—Yale, 5 goals; Harvard, 1 touch-down.
1887—Yale, 3 goals, 1 safety; Harvard, 1 goal.
1888—No game.
1889—Yale, 1 goal; Harvard, 0.
1890—Harvard, 2 goals; Yale, 1 goal.
1891—Yale, 1 goal, 1 touch-down; Harvard, 0.
1892—Yale, 1 goal; Harvard, 0.
1893—Yale, 1 goal; Harvard, 0.
1894—Yale, 12; Harvard, 4.
1895—No game.
1896—No game.
1897—Yale, 0; Harvard, 0.
1898—Harvard, 17; Yale, 0.
1899—Yale, 0; Harvard, 0.
1900—Yale, 0; Harvard, 0.
1901—Harvard, 22; Yale, 0.
1902—Yale, 23; Harvard, 0.
1903—Yale, 16; Harvard, 0.

PRINCETON—YALE

- 1876—Yale, 2 goals; Princeton, 0.
1877—Yale, 2 touch-downs; Princeton, 0.

- 1878—Princeton, 1 goal; Yale, 0.
1879—Yale, 2 safeties; Princeton, 5 safeties.
1880—Yale, 5 safeties; Princeton, 11 safeties.
1881—Yale, 0; Princeton, 0.
1882—Yale, 2 goals, 1 safety; Princeton, 1 goal, 1 safety.
1883—Yale, 1 goal; Princeton, 0.
*1884—Yale, 1 goal; Princeton, 1 touch-down.
1885—Princeton, 1 goal from touch-down; Yale, 1 goal from field.
*1886—Yale, 1 touch-down; Princeton, 0.
1887—Yale, 2 goals; Princeton, 0.
1888—Yale, 2 goals; Princeton, 0.
1889—Princeton, 1 goal, 1 touch-down; Yale, 0.
1890—Yale, 32 points; Princeton, 0.
1891—Yale, 2 goals, 2 touch-downs; Princeton, 0.
1892—Yale, 2 goals; Princeton, 0.
1893—Princeton, 1 goal; Yale, 0.
1894—Yale, 24; Princeton, 0.
1895—Yale, 20; Princeton, 10.
1896—Princeton, 24; Yale, 6.
1897—Yale, 6; Princeton, 0.
1898—Princeton, 6; Yale, 0.
1899—Princeton, 11; Yale, 10.
1900—Yale, 29; Princeton, 5.
1901—Yale, 12; Princeton, 0.
1902—Yale, 12; Princeton, .5.
1903—Princeton, 11; Yale, 6.

HARVARD—PENNSYLVANIA

- 1883—Harvard, 4; Pennsylvania, 0.
1884—Pennsylvania, 4; Harvard, 0.
1885—No game.
1886—Harvard, 28; Pennsylvania, 0.
1887—Harvard, 42; Pennsylvania, 0.
1888—Harvard, 28; Pennsylvania, 0.
1889—Harvard, 39; Pennsylvania, 0.
1893—Harvard, 26; Pennsylvania, 4.

* Game unfinished.

- 1894—Pennsylvania, 18; Harvard, 4.
1895—Pennsylvania, 17; Harvard, 14.
1896—Pennsylvania, 8; Harvard, 6.
1897—Pennsylvania, 15; Harvard, 6.
1898—Harvard, 10; Pennsylvania, 0.
1899—Harvard, 16; Pennsylvania, 0.
1900—Harvard, 17; Pennsylvania, 5.
1901—Harvard, 33; Pennsylvania, 6.
1902—Harvard, 11; Pennsylvania, 0.
1903—Harvard, 17; Pennsylvania, 0.

WEST POINT—ANNAPOLIS

- 1890—Annapolis, 24; West Point, 0.
1891—West Point, 32; Annapolis, 16.
1892—Annapolis, 12; West Point, 4.
1893—Annapolis, 6; West Point, 4.
1894—1898, inclusive, no game.
1899—West Point, 17; Annapolis, 5.
1900—Annapolis, 11; West Point, 7.
1901—West Point, 11; Annapolis 5.
1902—West Point, 22; Annapolis, 5.
1903—West Point, 40; Annapolis, 5.

ADDITIONAL RECORDS



FOOTBALL RULES

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EQUIPMENT, OFFICIALS, ETC.

RULE 1

(a) The game shall be played upon a rectangular field, 330 feet in length and 160 feet in width, enclosed by heavy white lines marked in lime upon the ground. The lines at the two ends shall be termed goal-lines. The side lines shall extend beyond their points of intersection with the goal-line. The goal shall be placed in the middle of each goal-line, and shall consist of two upright posts exceeding 20 feet in height and placed 18 feet 6 inches apart, with horizontal cross-bar 10 feet from the ground.

(b) The game shall be played by two teams of eleven men each.

(c) The officials of the game shall be a referee, an umpire and a linesman.

NOTE—The duties of each official are stated in Rule 29.

(d) The football used shall be of leather, enclosing an inflated rubber bladder. The ball shall have the shape of a prolate spheroid.

NOTE—It is desirable to have two stop-watches and two whistles for the officials. It is also desirable to have the field marked off with white lines every five yards, parallel to the goal-line, for measuring the five yards to be gained in three downs, and to provide two light poles about six feet in length and connected at the lower ends by a stout cord or chain exactly five yards long. In addition to this the middle section of the field, that is, the ground between the two twenty-five-yard lines, should be marked off with white lines five yards apart, parallel to side lines, in order to assist the officials in judging whether

the first man who receives the ball crosses the scrimmage line a sufficient distance from where the ball was put in play.

In measuring, the forward point of the ball, not its center, shall be taken as the determining point.

DEFINITION OF TERMS

RULE 2

METHODS OF KICKING THE BALL

(a) A *Drop-kick* is made by letting the ball drop from the hands and kicking it the instant it rises from the ground.

(b) A *Place-kick* is made by kicking the ball after it has been placed on the ground.

(c) A *Punt* is made by letting the ball drop from the hands and kicking it before it touches the ground.

(d) A *Kick-off* is a place-kick from the center of the field of play, and can not score a goal. (Rule 8.)

(e) A *Kick-out* is a drop-kick, place-kick or punt made by a player of the side which has made a safety or a touch-back.

(f) A *Free Kick* is a term used to designate any kick when the opponents are restrained by rule from advancing beyond a certain point before the ball is put in play.

NOTE—Under a Free Kick are included Kick-Off (Rule 2, d), Kick-Out (Rule 2, e), Punt-Out (Rules 5 and 25); Kick from a Fair Catch (Rule 7), and Place-Kick for Goal after a touch-down (Rules 4 (a) and 25). Any player of the side having the Free Kick may put the ball in play.

RULE 3

OUT OF BOUNDS

(a) The ball is *Out of Bounds* when it touches the ground on or outside the side line or side line extended, or when any part of the player who holds the ball touches the ground on or outside the side line or side line extended.

(b) If the ball is kicked so that it goes out of bounds before crossing the opponents' goal-line, it shall belong to the opponents

at the point where it crossed the side line. If, however, it strikes any player who is on side and then goes out of bounds, it shall belong to the player who first obtains possession of it.

RULE 4

TOUCH-DOWN, TOUCH-BACK AND SAFETY

(a) A *Touch-down* is made when the ball in possession of a player is declared dead by the Referee, any part of it being on, over or behind the opponents' goal-line.

(b) The point where the touch-down is marked, however, is not where the ball is carried across the line but where the ball is fairly held or called "down."

NOTE—If the ball is carried across the extension of the side line it is at once dead, and the touch-down is marked at the point where the side-line crosses the goal-line.

(c) A *Touch-back* is made when the ball in possession of a player guarding his own goal is declared dead by the referee, any part of it being on, over or behind the goal-line, provided the impetus which sent it to or across the line was given by an opponent.

(d) A *Safety* is made when the ball in the possession of a player guarding his own goal is declared dead by the referee, any part of it being on, over or behind the goal-line, provided the impetus which caused it to pass from outside the goal to or behind the goal-line was given by the side defending the goal. Such impetus could come: (1) from a kick, pass, snap-back or fumble; (2) from a kick which bounded back from an opponent; (3) in case a player carrying the ball is forced back, provided the ball was not declared dead by the referee before the line was reached or crossed.

A safety is also made when a player of the side in possession of the ball commits a foul which would give the ball to the opponents behind the offender's goal-line; also when the ball, kicked by a man behind his goal-line, crosses the side line extended behind the goal-line.

RULE 5

PUNT-OUT

A *Punt-out* is a punt made by a player of the side which has made a touch-down to another of his own side for a fair catch. (Rule 7.)

RULE 6

SCRIMMAGE

(a) A *Scrimmage* takes place when the holder of the ball places it upon the ground and puts it in play by kicking it forward or snapping it back. The scrimmage does not end until the ball is again declared dead.

The ball is always put in play from a scrimmage, except in cases where other specific provision is made by the rules.

NOTE—*Snapping the ball means putting it back by means of hand or foot with one quick or continuous motion from its position on the ground.*

(b) If, after the snapper-back has taken his position, he should voluntarily move the ball as if to snap it, whether he withholds it altogether or only momentarily, the ball is in play, and the scrimmage has begun.

(c) When snapping the ball back, the player so doing must be on side, the hand or foot used in snapping the ball excepted. (Rule 10.)

RULE 7

FAIR CATCH

(a) A *Fair Catch* consists in catching the ball after it has been kicked by one of the opponents and before it touches the ground, or in similarly catching a punt-out by another of the catcher's own side, provided the player, while making the catch, makes a mark with his heel and takes not more than one step thereafter. It is not a fair catch if the ball after the kick was touched by another of his side before the catch. Opponents who are off-side shall not interfere in any way with a player who has

an opportunity to make a fair catch, nor shall he be thrown to the ground after such catch is made unless he has advanced beyond his mark.

(b) If a side obtains a fair catch, the ball must be put in play by a punt, drop-kick or place-kick, and the opponents can not come within ten yards of the line on which the fair catch was made; the ball must be kicked from some point directly behind the spot where the catch was made, on a line parallel to the side line.

RULE 8

GOAL

A *Goal* is made by kicking the ball in any way, except by a punt from the field of play over the cross-bar of the opponents' goal, or as provided in rules for conversion of touch-down. If the ball passes directly over one of the uprights it counts a goal.

NOTE—If the ball, after being kicked, strikes an opponent and then passes over the cross-bar, it still counts a goal.

RULE 9

CHARGING

Charging is rushing forward to seize or block the ball or to tackle a player.

RULE 10

OFF-SIDE

(a) In a scrimmage no part of any player shall be ahead of the ball when it is put in play. [Exception under Rule 6 (c).]

NOTE—Ahead of the ball means between the opponents' goal and a line parallel to the goal-line and passing through the point of the ball nearest to the goal-line of the side not in possession.

(b) A player is put off-side if the ball in play has last been touched by one of his own side behind him. No player, when off-side, shall touch the ball except on a fumble or a muff, nor shall he interrupt or obstruct an opponent with his hands or arms until

again on-side. No player can, however, be called off-side behind his own goal-line.

NOTE—If a player is ahead of the ball when it is kicked by another of his side, he is off-side, and he shall not allow the ball to touch him until again on-side. Should he break this rule, the ball goes to opponents on the spot, except as specified in (d) of this rule.

(c) A player being off-side is put on-side when the ball has touched an opponent, or when one of his own side has run in front of him, either with the ball, or having been the last player to touch it when behind him.

The man who, standing back of his own line of scrimmage, receives the ball from one of his own side and then kicks it beyond the line of scrimmage, may not put other men on-side by running ahead of them, nor may he himself get the ball until after it has touched a player of the opposing side.

EXPLANATION—The Rules Committee desires to state that the reason for this prohibition is in order that there may be no excuse whatever for running into the full-back after he has kicked the ball. The above rule renders it impossible for him either to put men on-side or himself get the ball, and this takes away all excuse for roughness of this nature, and the Committee expects officials to severely punish any such unnecessary roughness.

(d) If the ball, when not in possession of either side, is touched when inside the opponents' ten-yard line by a player who is off-side, it shall go as a touch-back to the defenders of that goal.

RULE 11

BALL IS DEAD

The ball is *Dead*:

(a) Whenever the referee, umpire or linesman blows his whistle or declares a down.

(b) When the referee has declared that a down, touch-down, touch-back, safety or goal has been made.

(c) When a fair catch has been heeled.

(d) When it has been downed after going out of bounds.

(e) When the ball goes out of bounds after a kick before touching a player who is on-side.

NOTE—(a) *Should the ball strike an official it is not regarded as dead, but play continues exactly as if the ball had not touched him.*

(b) *No play can be made when the ball is dead, except to put it in play according to rule.*

RULE 12

LENGTH OF GAME

(a) The length of the game shall be seventy minutes, divided into two halves of thirty-five minutes each, exclusive of time taken out. There shall be ten minutes intermission between the two halves.

NOTE—*The game may be of shorter duration by mutual agreement between the captains of the contesting teams.*

Whenever the commencement of a game is so late that, in the opinion of the referee, there is any likelihood of the game being interfered with by darkness, he shall, before play begins, arbitrarily shorten the two halves to such length as shall insure two equal halves being completed, and shall notify both captains of the exact time thus set. Either side refusing to abide by the opinion of the referee on this point shall forfeit the game.

(b) The game shall be decided by the final score at the end of the two halves.

(c) Time shall not be called for the end of a half until the ball is dead, and in case of a touch-down, the try-at-goal shall be allowed.

(d) Time shall be taken out whenever the game is unnecessarily delayed or while the ball is being brought out for a try-at-goal, kick-out or kick-off, or when play is for any reason suspended by the referee, umpire or linesman. Time shall begin again when the ball is actually put in play.

NOTE—*Time is not to be taken out when the ball goes out of bounds except in case of unreasonable delay in returning the ball to play.*

(e) No delay arising from any cause whatsoever shall continue more than two minutes. Any delay thereafter shall be penalized under Rule 27 (e) and Rule 28 (C).

RULE 13

KICK-OFF

(a) The captains of the opposing teams shall toss up a coin before the beginning of a game, and the winner of the toss shall have his choice of goal or kick-off. The ball shall be kicked off at the beginning of each half, the kick-off at the beginning of the second half being made by the side that did not first kick off at the beginning of the game. The teams shall change goals after every try-at-goal following a touch-down, and after every goal from the field, and the side just scored upon shall have the option of kicking off or of having their opponents kick off. At the beginning of the second half the teams shall take opposite goals from those assumed at the beginning of the first half.

(b) At kick-off, if the ball goes out of bounds before it is touched by an opponent, it shall be brought back and kicked off again. If it is kicked out of bounds a second time it shall go as a kick-off to the opponents. If either side thus forfeits the ball twice, it shall go to the opponents, who shall put it in play by a scrimmage at the center of the field.

(c) At kick-off, if the ball is kicked across the goal-line and is there declared dead when in the possession of one of the side defending the goal, it is a touch-back. If the ball is not declared dead, the side defending the goal may run with it or kick it exactly as if it had not crossed the goal-line. If it is declared dead thus in possession of the attacking side, it is a touch-down.

(d) At kick-off and on a punt or drop-kick from a fair catch, the opposite side must stand at least ten yards in front of the ball until it is kicked. On a kick-out, the opposite side can not stand nearer the goal than the twenty-five-yard line, except on a kick-out made after a drop-kick upon a first down inside the twenty-five yard line, when the ten-yard line is the restraining mark. [See Rule 23, exception.]

RULE 14

FREE KICK

(a) The side which has a free kick must be behind the ball when it is kicked.

NOTE—Otherwise the kick must be made again under conditions laid down in Penalties—E.

(b) In the case of a kick-off, kick-out, kick from a fair catch or kick after touching the ball in at side-line (Rule 22, a), the ball must be kicked a distance of at least ten yards toward the opponents' goal from the line restraining the player making the kick, unless it is stopped by an opponent; otherwise the ball is not in play.

RULE 15

LAWFUL CHARGING

(a) Charging is lawful, in case of a punt-out or kick-off, as soon as the ball is kicked; and the opponents must not charge until the ball is kicked.

(b) In case of any other free kick, charging is lawful: (1) When the player of the side having the free kick advances beyond his restraining line or mark with the ball in his possession; (2) when he has allowed the ball to touch the ground by accident or otherwise.

(c) If such lawful charging takes place, and if the side having the free kick fails to kick the ball, then the opponents may line up five yards ahead of the line which restrained them before charging. In that case, the side having the free kick must kick the ball from some point directly behind its mark, if the free kick resulted from a fair catch, and in other cases from behind the new restraining line.

EXCEPTION—If, in case of a try-at-goal, after a touch-down, the ball is not kicked, after having been allowed to touch the ground once, no second attempt shall be permitted, and the ball shall be kicked off at the center of the field. (Rule 13.)

RULE 16

NO INTERFERENCE WITH SNAPPER-BACK

(a) The snapper-back is entitled to full and undisturbed possession of the ball. The opponents must neither interfere with the snapper-back nor touch the ball until it is actually put in play.

(b) In snapping the ball back, if the player so doing is off-side, the ball must be snapped again, and if this occurs once more on the same down, the opponents shall receive five yards, the number of the down and the point to be gained remaining unchanged. If the player is off-side for the third time on the same scrimmage the ball shall go to the opponents.

(c) The man who snaps back and the man opposite him in the scrimmage may not afterward touch the ball until it has touched some player other than these two. If this rule is broken the ball goes to the opponents on the spot of the foul.

(d) If the man who puts the ball in play in a scrimmage kicks it forward, no player of his side can touch it until it has gone ten yards into the opponents' territory, unless it be touched by an opponent. If this rule is broken the ball goes to the opponents on the spot of the foul.

(e) The man who first receives the ball when it is snapped back shall not (save as provided in Rule 18, c) carry the ball forward beyond the line of scrimmage unless he has regained it after it has been passed to and has touched another player.

RULE 17

USE OF HANDS AND ARMS

(a) Before the ball is put in play no player shall lay his hands upon, or, by the use of his hands or arms, interfere with an opponent in such a way as to delay putting the ball in play. Any such interference shall be regarded as delay of game. (Rule 28, C.)

(b) After the ball is put in play, the players of the side that has possession of the ball may obstruct the opponents with

the body only, except the player running with the ball, who may use his hands and arms.

(c) The players of the side not having the ball may use their hands and arms, but only to get their opponents out of the way in order to reach the ball or stop the player carrying it.

RULE 18

MOVEMENT ALLOWED BEFORE BALL IS PUT IN PLAY

(a) Before the ball is put in play in a scrimmage, if any player of the side which has the ball takes more than one step in any direction, he must come to a full stop before the ball is put in play.

EXCEPTION—One man of the side having the ball may be in motion toward his goal without coming to a stop before the ball is put in play.

When the ball is put in play in a scrimmage at any point of the central section of the field, that is, the portion bounded by the two twenty-five-yard lines and the two side lines—

(b) At least seven players of the side having the ball must be on the line of scrimmage.

(c) The player who first receives the ball when the scrimmage is within the above-mentioned territory, may carry it forward beyond the line of scrimmage, provided in so doing he crosses such line at least five yards from the point where the snapper-back put the ball in play.

When the ball is put in play by a scrimmage at any point on or between one of these twenty-five-yard lines and the nearest goal-line—

(d) At least five players of the side having the ball must be on the line of scrimmage.

(e) If five players, not including the quarter-back, are behind the line of scrimmage, they must occupy one of the three following positions, viz.: (1) All five of such players may be inside the positions occupied by the players at the ends of the line of scrimmage, in which case two of these players must be at least five yards back of this line; or (2) if one of the said five play-

ers be outside of the position occupied by the player at the end of said line, then only one other of these five players must be at least five yards back of this line; but (3) all five of these players may be nearer than five yards to the line of scrimmage, provided two of them be outside the positions occupied by the players at the ends of said line. In this rule "outside" means both feet outside the outside foot of the player at the end of the line.

RULE 19

THROWING, PASSING OR BATTING THE BALL

A player may throw, pass or bat the ball in any direction except toward his opponents' goal.

RULE 20

A DOWN

(a) If a player having the ball is tackled, and the movement of the ball stopped, or if the player cries "down," the referee shall blow his whistle, and the side holding the ball shall put it down for a scrimmage.

(b) As soon as a runner attempting to go through is tackled and goes down, being held by an opponent, or whenever a runner having the ball in his possession cries "down," or if he goes out of bounds, the referee shall blow his whistle and the ball shall be considered down at that spot.

(c) There shall be no piling up on the player after the referee has declared the ball dead.

RULE 21

NECESSARY GAIN OR LOSS IN THREE DOWNS

(a) If, in three consecutive downs (unless the ball crosses the goal-line), a team has neither advanced the ball five yards, nor taken it back twenty yards, it shall go to the opponents on the spot of the fourth down.

NOTE—"Consecutive" means without going out of possession of the side holding it, except that—(1) having advanced the ball beyond the point necessary for the first down or the ball having

actually passed into possession of the other side and then been fumbled and lost by them before having been declared dead by the referee; or, (2) by having kicked the ball they have given their opponents fair and equal chance of gaining possession of it. No kick, however, provided it is not stopped by an opponent, is regarded as giving the opponents fair and equal chance of possession unless the ball goes beyond the line of scrimmage.

EXCEPTION—A team may not retain possession of the ball by taking it back twenty yards a second time unless the ball in the meantime has been in the possession of the opponents.

(b) When a distance penalty is given, the ensuing down shall be counted the first down, unless this should result to the advantage of the offending side, when the down and the point, or in some cases (*Penalties K and L*) the distance to be gained for first down, shall remain the same.

RULE 22

PUTTING BALL IN PLAY FROM OUT OF BOUNDS

If the ball goes out of bounds, whether it bounds back or not, a player of the side which secures it must bring it to the spot where the line was crossed, and there either:

(a) Touch it in with both hands at right angles to the side line and then kick it at least ten yards toward his opponents' goal;—[Neither side need be on-side when the ball is thus put in play.]—or

(b) Walk out with it at right angles to the side line, any distance not less than five nor more than fifteen yards, and there put it down for a scrimmage, first declaring how far he intends walking.

RULE 23

KICK-OUT AFTER SAFETY OR TOUCH-BACK

A side which has made a touch-back or a safety must kick out, from not more than twenty-five yards outside the kicker's goal. If the ball goes out of bounds before striking a player, it must be kicked out again, and if this occurs twice in succession,

it shall be given to the opponents as out of bounds on the twenty-five-yard line on the side where it went out. At kick-out the opponents must be on the twenty-five-yard line or nearer their own goal, and the kicker's side must be behind the ball when it is kicked. Should a second touch-back occur before four downs have been played, the side defending the goal may have the choice of a down at the twenty-five-yard line, or a kick-out.

EXCEPTION—Whenever a side has tried a drop-kick at the goal upon a first down inside the twenty-five-yard line and the result has been a touch-back, the ten-yard instead of the twenty-five-yard line shall determine the position of the opponents, and the kicker's side must be behind the ball when it is kicked.

RULE 24

TRY-AT-GOAL AFTER TOUCH-DOWN

(a) A side which has made a touch-down must try-at-goal by a place-kick direct or by a place-kick preceded by a punt-out if they so desire.

(b) After the try-at-goal, whether the goal be made or missed, the ball shall be kicked off at the center of the field, as provided in Rule 13.

RULE 25

TRY-AT-GOAL BY PLACE-KICK

(a) If the try be by a place-kick, a player on the side which has made the touch-down shall hold the ball for another of his side to kick at some point outside the goal on a line parallel to the side line passing through the point where the touch-down was declared. The opponents must remain behind their goal-line until the ball has been placed upon the ground. The referee shall signal with his hand when the ball is placed on the ground.

(b) If the try-at-goal is to be preceded by a punt-out, the punter shall kick the ball from the point at which the line parallel to the side line, and passing through the spot of the touch-down, intersects the goal-line. The players of his side must stand in the field of play not less than five yards from the goal-line.

The opponents may line up anywhere on the goal-line except within the space of ten feet on each side of the punter's mark, but they can not interfere with the punter. If a fair catch be made from a punt-out, the mark shall serve to determine the positions as the mark of any fair catch, and the try-at-goal shall then be made by a place-kick from this spot, or any point directly behind it. If a fair catch be not made on the first attempt the ball shall go as a kick-off at the center of the field to the defenders of the goal.

NOTE—Since the defending team is on-side, they may, of course, charge as soon as the ball is kicked and try to get the ball or interfere with the catch.

(c) The holder of the ball and no other player in any place-kick may be off-side or out of bounds without vitiating the kick.

RULE 26

SCORING

The following shall be the values of plays in scoring: Goal obtained by touch-down, 6 points; goal from field kick, 5 points; touch-down failing goal, 5 points; safety by opponents, 2 points.

NOTE—The 6 points is inclusive of the 5 points for touch-down; that is, kicking the goal adds but 1 point.

RULE 27

NO METALLIC SUBSTANCES MAY BE WORN

(a) No one having projecting nails or iron plates on his shoes or any projecting metallic or hard substance on his person shall be allowed to play in a match. If head protectors are worn, no sole leather, papier mache, or other hard or unyielding material shall be used in their construction, and all other devices for protectors must be so arranged and padded as, in the judgment of the umpire, to be without danger to other players. Leather cleats upon the shoes shall be allowed as heretofore.

SUBSTITUTES

(b) A player may be substituted for another at any time at the discretion of the captain of his team.

NO UNNECESSARY ROUGHNESS NOR DELAY

(c) There shall be no unnecessary roughness, throttling, hacking or striking with the closed fist.

(d) A player who has been replaced by a substitute can not return to further participation in the game.

(e) There shall be no unnecessary delay of the game by either team.

NO COACHING

(f) There shall be no coaching, either by substitutes or by any other persons not participating in the game. No one except the twenty-two players shall, under any circumstances, come upon the field of play, save only in case of an accident to a player, and then but one official representative, and he previously designated to the umpire, shall have this right. Only five men shall be allowed to walk up and down on each side of the field. The rest, including substitutes, water-carriers, and all who are admitted within the enclosure, must be seated throughout the game. None of these shall come upon the field of play without permission of the umpire. Breach of any part of this rule shall constitute a foul, and be punished by a loss of five yards to the side whose man infringes, the number of the down and the distance to be gained for first down remaining unchanged.

NO TRIPPING

(g) There shall be no tripping.

PENALTIES

RULE 28

A foul is any violation of a rule. The penalties for fouls shall be as follows:

TRIPPING

A. (1) For tripping an opponent (Rule 27, *g*) by either side the penalty shall be the loss of twenty yards.

HOLDING, USE OF HANDS AND ARMS, OFF-SIDE

(2) For holding an opponent who has not the ball (Rule 17, *c*), or for unlawful use of hands or arms (Rule 17, *b* and *c*), for violation of the rules governing off-side play (Rule 10), for violation of Rules 16, *e*, and 18, *c*, except where special provision is made elsewhere, the penalty shall be the loss of five yards if the side not in possession of the ball was the offender; if the offending side was in possession of the ball it shall be the loss of twenty yards, the number of the down and the point to be gained for first down remaining unchanged.

EXCEPTION—An off-side play by the side in possession of the ball shall be penalized by loss of ten yards, the number of the down and the point to which the ball must be advanced for first down remaining unchanged. (See also special ruling, 16, *b*.)

The penalties above named shall be given from the spot where the foul was committed.

FORWARD PASS AND BATTED BALL

B. If the ball is *thrown, passed or batted toward the opponents' goal*, the opponents shall receive five yards, that is, the ball shall be put in play at a point five yards back of the spot where the man was when he made the forward pass. The point for his side then to reach will be ten yards from the spot where the ball is then put in play by a scrimmage, the number of the down remaining unaffected.

FOUL WHEN BALL IS IN POSSESSION OF NEITHER SIDE

NOTE—In case neither side was in possession of the ball when any of the fouls were committed—for example, if the ball was in the air from a kick or was free upon the ground after a fumble, kick or pass—it shall go to the offended side at the spot where the foul occurred. In case of tripping, the distance shall be given in addition.

INTERFERENCE WITH SNAPPER-BACK AND UNNECESSARY DELAY

C. In the case of interference of any kind with putting the ball in play (Rules 16, a, and 17, a), or unnecessary delay of the game (Rule 27, e), the offended side shall be advanced five yards.

PILING UP

D. (1) In case of piling up on a player after the referee has declared the ball dead (Rule 20, c), the offended side shall receive fifteen yards.

INTERFERENCE WITH FAIR CATCH

(2) If a player who has an opportunity of making a fair catch (Rule 7, a) is unlawfully obstructed, the offended side shall receive fifteen yards and the choice of putting the ball in play by a free kick or by a scrimmage.

CATCHER THROWN

(3) If a player who has *heeled a fair catch* (Rule 7, a), is thrown to the ground, unless he has advanced beyond his mark, his side shall receive fifteen yards and be obliged to take a free kick.

ADVANCING BEYOND THE MARK ON FREE KICK

E. (1) In any case of *free kick* (Rule 2, f), if the *kicker advances beyond his mark*, before kicking the ball (Rules 7, a, 15, b, and 25, b), no matter whether he then kicks or not, the opponents shall be allowed to line up five yards nearer the

kicker's mark, and the kick shall then be made from some point back of the first mark, and at the same distance from the side line.

BALL TOUCHING THE GROUND

This shall also apply when the side having a free kick allows the ball to touch the ground (Rule 15, *b*, and 25, *b*), and then fails to kick it (kick-off and try-at-goal after touch-down excepted). The same ruling shall be given in case any player of the side making a free kick is ahead of the ball when it is kicked (Rule 14, *a*).

CHARGING BEFORE BALL IS PUT IN PLAY

(2) In the case of a free kick, if the opponents *charge* (Rule 9) *before the ball is put in play* (Rule 15, *a*), they shall be put back five yards for every such offense and the ball shall be put in play again by a kick from a point which may be five yards nearer the opponents' goal.

STARTING BEFORE BALL IS PUT IN PLAY

F. In the case of *unlawful starting before the ball has been put in play for a scrimmage* (Rule 18, *a*), provided there is no infraction of Rule 10, the side thus offending shall lose five yards, the number of the down and the point to be gained remaining unchanged.

The same ruling shall be made in cases of infraction of Rule 18, *b*, *d*, and *e*.

REFUSING TO PLAY

G. If either side *refuses to play within two minutes* after having been ordered to do so by the referee, it shall forfeit the game. This shall also apply to refusing to begin a game when ordered to do so by the referee. (Rule 12, *e*.)

DISTANCE PENALTY NEAR GOAL-LINE

H. Whenever the rules provide for a distance penalty, if the distance prescribed would carry the ball *nearer to the goal-line*

than the five-yard line, the ball shall be down on the five-yard line. If, however, the foul is committed inside the ten-yard line, half the distance to the goal shall be given.

REPEATED FOULS NEAR GOAL-LINE

I. If a team on the defense commits fouls when so near its own goal that these fouls are punishable only by the halving of the distance to the line (Rule 28, H), the object being, in the opinion of the referee, to delay the game, the offending side shall be regarded as refusing to allow the game to proceed. The referee shall, in such case, warn the offending side once, and if the offense is repeated he shall declare the game forfeited to the opponents.

STRIKING AND UNNECESSARY ROUGHNESS

J. If a player is guilty of unnecessary roughness, throttling, hacking or striking with closed fist (Rule 27, c), he shall be at once disqualified.

K. In case the game is interfered with by some act palpably unsportsmanlike and not elsewhere provided for in these rules, the umpire shall have the power to award ten yards to the offended side, the number of the down and the point to be gained for first down remaining unchanged.

L. For infringement of any part of Rule 27, f, the penalty shall be a loss of five yards by the side offending, the number of the down and the point to be gained remaining unchanged.

RIGHT TO DECLINE PENALTY

NOTE—Under both K and L for "point" read "distance" in case offended side is in possession of ball. Whenever a foul is committed which, in the opinion of the umpire, did not affect the play, the offended side may decline the penalty. In case of a run being made from this play, not more than twenty-five yards from the spot where the foul was committed shall be allowed.

DUTIES OF OFFICIALS

I.—THE REFEREE

RULE 29

The Referee is responsible for the enforcement of Rules 1, 2, 3, 4, 5, 6 (*a* and *b*); 7 (except as relates to interference, throwing catcher, and positions of players); 8, 11, 12, 13 (except *d*); 14, *b*; 16, *a* and *e*; 18, *c*; 19, 20 (*a* and *b*); 21, 22, 23 (except as relates to positions of players); 24, 25 (except as relates to positions of players and interference); 26, 27, *c*.

In making his decisions the Referee must recognize and allow precedence to any penalty inflicted by the umpire for a foul.

The Referee's decisions are final upon all points not specified in the duties of the Umpire.

The Referee shall see that the ball is properly put in play, and he is judge of its position and progress.

He is judge of forward passes, of interference with the snap-back, and of the advance of the ball by the player who first receives it from the snapper-back when the ball is put in play from a scrimmage (Rule 16, *a* and *e*), and offenses under Rule 18, *c*.

At the beginning of a game and in every case after time has been taken out, he shall ascertain from each captain that his team is ready, before ordering play to begin.

He is sole authority for the score of the game and is judge of forfeiture of the game under the rules.

The Referee may appeal to both the Umpire and Linesman for testimony upon all points within his jurisdiction.

The Referee must volunteer testimony to the Umpire concerning infringement of Rule 27 (*f*).

II.—THE UMPIRE

The Umpire is responsible for the enforcement of all rules whose infringement is punishable by a distance penalty or by

the surrender of the ball by one team to the opponents, except 13, *b*; 16, *a* and *e*; 18, *c*; 19 and 23, viz.: Rules 6, *c*; 9, 10, 13, *d*; 14, *a*; 15, 16 (except *a* and *e*); 17, 18 (except *c*), 20, *c*; 27.

The Umpire is judge of the conduct of the players, and his decision is final regarding such fouls as are not specifically placed within the jurisdiction of the Referee.

The Umpire is judge of charging, and of the positions of players whenever the ball is put in play.

He may appeal to both the Referee and Linesman for testimony in cases of fouls seen by them, and it shall be their duty to volunteer testimony concerning violations of Rule 27 (*c* and *f*).

NOTE—*Captains and players, however, may not appeal to the Referee or Linesman for their testimony upon the points just mentioned.*

The Umpire shall not blow his whistle nor declare the ball dead, nor call time, except to grant a penalty for a foul committed.

Whenever the Umpire notices or is informed by the Referee, or Linesman that a substitute or any other person not participating in the game is coaching, he shall immediately exclude the offender for the remainder of the game from the neighborhood of the field of play; i. e., send the offender behind the ropes or fence surrounding the field of play.

Furthermore, he shall exact the penalty as provided in Rule 28 (*L*).

NOTE—*The Referee and Umpire should use whistles to indicate cessation of play on downs or fouls.*

III.—THE LINESMAN

The Linesman shall, under the supervision of the Referee, mark the distances gained or lost in the progress of the play.

He shall remain on the side lines and be provided with two assistants, who shall remain outside the field of play and who shall use, in measuring distance, the rope or chain mentioned in Note under Rule 1 (*d*).

The Linesman shall, under the direction of the Referee, also keep the time, and he should use a stop-watch in so doing. He should start his watch not when the Referee blows his whistle, but when the ball is put in play.

The Linesman must penalize a side for tripping, unnecessary roughness to a back after a kick, and for off-side play in the line. It should be his special duty to be in position to see that the players are on-side when the ball is put in play in a scrimmage. In case the Linesman gives a decision against one side and the Umpire against the other on the same play, the penalties being other than disqualification, the ball shall be brought back to the point where it was put in play and played over again, the number of the down and the point to be gained for first down remaining the same. In case of disqualification by either official, at any time, the disqualification shall stand.

The Linesman shall notify the captains of the time remaining for play, not more than ten nor less than five minutes before the end of each half.

BASEBALL

EDITED BY EDWARD N. ROBINSON, BROWN, '96

CHAPTER I

THE GAME AND HOW IT IS PLAYED

BASEBALL has fairly earned its title of National Game, not because it is of American inception, but because it is our most popular field sport and is thoroughly characteristic of the American people. So far as origin is concerned, baseball is much less of an American game than is lacrosse, for while it may be said to have been born in this country, it is of English parentage. About 1820 a somewhat modified version of the old English game of rounders was played on the New England commons, and twenty years later the game had spread and had become "town ball." In 1833 the first regularly organized ball club was formed in Philadelphia under the sonorous title of The Olympic Town Ball Club of Philadelphia. About 1850 the game gained vogue in New York. As played by the Knickerbocker Club, it was known as the "New York game," to distinguish it from the "Massachusetts game" of New England. In 1858 the National Association of Baseball Players came into being and the first set of playing rules was drawn up and published. Such, briefly, was the beginning of the game of base-

third base and home base or home plate, which are situated 90 feet from each other and form a perfect square or, viewed from one of the bases, a diamond. Diagram G shows the arrangement of the field. The implements are a ball made of a rubber core wound with yarn and covered with horsehide and a bat of some hard wood well seasoned.

THE PLAYERS, nine in number, are as follows: pitcher, catcher, first-baseman, second-baseman, third-baseman, short-stop, right-fielder, center-fielder, and left-fielder. Technically the pitcher and catcher are known as the battery, the three fielders as the outfield and the balance of the players as the infield. The game is contested by two teams, which take turns "at bat." The team not "at bat" is "in the field."

THE PURPOSE OF THE GAME is to determine which side can make the larger number of runs. Each player in turn of the side "at bat" tries to bat the ball in such a way that it can not be "fielded" before the batter has reached first, second, third or home base. The batsman becomes a runner after hitting the ball and may be "put out" by any of the opposing team if tagged with the ball when not touching a base, by having the ball he has hit caught on the fly, by having the ball played into the hands of first-baseman or subsequent baseman before he reaches their bases and by failure to observe various rules governing his conduct as a base-runner. In running the bases the runner goes from right to left, taking first base first and the others

in order. When a runner successfully makes the circuit of all the bases he scores a run. At the end of the game, the team having the most runs to its credit is the winner.

NINE INNINGS CONSTITUTE A GAME unless the umpire stops the play for some reason before the ninth inning is reached or unless at the end of the ninth inning the scores of the opposing teams are equal. In the former case if five innings have been contested before play is stopped it is a game and the side having the larger number of runs to its credit at the termination of play is the winner; if the play is stopped before five innings have been contested it is considered that no game has been played. In the second case additional innings are played until one team has scored more runs than the other or until darkness necessitates the calling of the game.

An inning lasts until three players of each side have been put out, the teams each being at bat for half an inning and in the field for half an inning.

WHEN A GAME BEGINS one team goes into the field and the other remains at bat. The home team has the choice of taking the field or going to bat first. The players of the team having the first inning go to bat in turn, this "batting order" being observed throughout the game. The batsman stands at the "plate" or home base, and tries to hit the ball when delivered by the pitcher. A ball which passes over any part of the plate at a height between the batsman's knees and shoulders

is, whether struck at or not, a "strike," as is any ball which the batsman strikes at and does not hit.

THE BATSMAN BECOMES A BASE-RUNNER if he hits a fair ball or at the third strike, and is out if the third strike is caught by the catcher before it touches the ground, if he is tagged with the ball by an opponent before he reaches first base or if the ball is thrown to first-baseman and is caught by him before the runner reaches that base. A ball which is not a strike is a "ball" unless it touches the person of the batsman. A ball which hits the batsman is called a "dead ball," and the batsman is allowed to take first base, provided he does not offer at the ball. If he hits at the ball on his third strike and it touches his person he is out. A hit ball * which falls outside of the "foul lines," i. e., the lines from home base to first base and from home base to third base or a continuation of them, is a "foul," and unless caught before it touches the ground by a player of the opposing team it counts neither for nor against the batsman. If the batsman is struck by a pitched ball he is required to "take his base," that is, advance to first base. If the pitcher delivers four balls to a batsman the batsman is required to take his base in the same way. The batsman is out when a fair ball or a foul ball is caught on the fly by an opponent, when third strike is caught by the catcher, and when, having

* What is known as the "foul-strike rule" was in force in the National, American and most professional leagues last season. This rule provides that with not more than one strike called on the batsman a foul hit ball, unless caught on the fly, shall count as a strike.

made a fair hit or had three strikes called on him, he is tagged out or caught out before reaching first base.

A HIT which allows the runner to reach first base in safety is called a "base-hit" or a "single," one which allows him to reach second base a "two-base-hit" or "two-bagger," one which gives him third base a "three-base-hit" or "three-bagger" and one which allows him to reach home a "home run."

HAVING REACHED FIRST BASE, the runner's object is to advance to second, and this he may do at any time when the game is in progress save when a foul ball has been struck or when a fair ball has been caught on the fly. If a foul fly or a fair ball is caught he must hold his base, or, if he has started to run, must return to his base before he goes on again. In case of a fair ball, if an opponent having the ball touches the base he has left before he returns to it he is put out.

If a player occupies first base when the batsman makes a fair hit or in any other way becomes a base-runner such player is "forced to second"—that is, he must vacate first base and go to second. He is out if tagged with the ball in the hand of an opponent or if an opponent having the ball touches second base ahead of him. In the same way a player on second is forced to third and a player on third is forced to the home plate.

THE UMPIRE is the only official. He is judge of all plays and his decisions are final.

CHAPTER II

FOR THE CAPTAIN

FALL TRAINING is valuable. The captain who can get his players together—more especially the new candidates—for a month of out-of-door work in September and October is fortunate. Much can be taught then that otherwise would have to be left to the spring, and the spring, especially in northern latitudes, is none too long for advanced instruction alone. With much of the rudimentary work learned in the fall, the team is by May likely to be a good month ahead of the team whose instruction did not begin until February or March. Fall work should be confined principally to individual playing. Candidates for the positions should be taught to catch, throw, bat, and run the bases. Instruction in the finer points and subtleties of the game as well as the development of team-play may well be left until spring. A four-inning game should usually conclude the day's practise during the fall. Ten minutes of light calisthenics should precede the work. Strict training is not necessary until spring.

The captain and manager should get their heads together at this time of year and arrange the schedule of games, secure the services of a head coach, if this

has not already been done, and, in short, perfect all details possible.

SPRING TRAINING should be started not later than the second week in February. In the North the weather at that time will not permit of outdoor work, but much excellent training may be obtained in the gymnasium. Running on the board track may begin the afternoon's work and be followed by limbering-up exercises with and without the dumb-bells, giving special attention to the muscles of the arms, legs, and back.

CANDIDATES FOR PITCHER should be given daily work in the cage or, if there is no cage, at one side of the hall. Exercises with light dumb-bells should precede the use of the ball. Let the candidates hold the bells at arm's length in front and twist them rapidly to limber the wrists. Then let them shoot the bells away from the body with good hard thrusts, first in front, then to the sides, and then overhead. At the beginning of the season care must be taken not to put too much power into the pitching. Before the muscles are stretched it is absurdly easy to sustain a strain serious enough to keep one out of the game far into the spring.

If the cage is large enough to permit of batting, so much the better. Practise in this feature can not be started too early. Fielders, too, may obtain good practise at stopping grounders in the cage; in short there is no end to the uses to which a good-sized cage may be put in the preparation of a team.

During this indoor work the captain—and the coach if he is on hand—should keep his eyes wide open. Men who are out of the question as varsity material should be dropped from the squad at once so that the weeding-out process will be simplified when the candidates are out of doors and, by reason of being more scattered, are harder to watch.

A week or two of outdoor work before the Easter vacation interrupts matters is about all that can be hoped for in the North, and during that fortnight it is perhaps well to confine work on the diamond principally to batting and fielding. When the men once more present themselves, spring training begins in earnest.

THE TRAINING TABLE should now be started and regularity in meals, sleep and exercise insisted upon. As when training for football or track athletics, it is less the particular kind of food which is provided as the way it is cooked and eaten that counts. Secure good, plain food for your men and see that it is cooked well and served appetizingly. And insist on variety; there's nothing so discouraging to a man with symptoms of overtraining than a recurrence of the same old viands at every meal. Keep fat meats and heavy pastry off the table. Don't allow any man to "bolt" his food. The dinner should come at night. Care should be taken that the men do not overeat, especially before practise or a game, as a load of undigested food will make the men sleepy and lazy.

A baseball player requires plenty of sleep; as a

general rule a full eight hours and a half is none too much. Players in training should observe regular hours.

Don't allow your men to appear on the field for any game looking less than spick and span. Old faded shirts and dirty trousers may do for practise—though there are two opinions as to that—but they are not allowable in a contest. The time when a disreputable appearance was popularly believed to be the mark of a star player has, fortunately, passed. Nowadays it is good form to look like a gentleman instead of a tramp—even on the diamond.

The captain or trainer should see that the men are properly protected when the grounds are wet, particularly in the early season. Stockings of wool should cover the ankles and knees. Ball players are especially liable to rheumatism, and wet grounds are very likely to produce it.

Each man should receive a good brisk massage treatment over the working muscles every day. The dressing-rooms should be warm and absolutely free from drafts.

THE IDEAL POSITION FOR THE CAPTAIN to occupy is in the infield. From there he can keep in touch with his pitcher and can better keep his infield together when the plays are complicated. There should also be an outfield captain, who should keep the outfield up to its work and direct the playing there.

The captain should have a thorough knowledge of

the game inclusive of the fine points of playing. He should also be able to formulate strategic combinations and know when to use them. He should be a hard worker himself and encourage his men to work hard as well. He should be unsparing of criticism and generous with praise.

CHAPTER III

BATTING

FORM is an essential feature of successful batting. The young player who earnestly desires to amount to something as a batsman should study the work of the professionals whenever possible and pattern his own style of standing and hitting on theirs. To be sure, all professional ball players do not bat in the same fashion any more than do all amateurs, but the tyro will be quite safe in fashioning his form on that of any one of them whose last season's average was .350 per cent or better. A high average is the best of recommendations for any style of stick work. In the present treatise an attempt is made to aid the young player in attaining proficiency with the bat, but the claim is not made that the style described is absolutely the best for all players; only that it is one of many good styles and well adapted to the beginner.

THE POSITION is half the battle. Whether you are a right-handed or a left-handed batter, stand up to the plate so that no matter where the ball comes, so long as it is over any part of the rubber, you can reach it without leaning. To stand far away from the plate is usually a confession of weakness; to toe it requires a retreat before you can handle a ball coming close in.

Stand about three-quarters facing the pitcher, hold the bat well up on the handle and let it lie back easily in the grasp. Do not swing it back until it is behind you, but keep it in front rather than back of the body. In this position—the hands being just above the level of the belt—it is possible to reach every sort of delivery with a minimum of exertion, in the quickest time and without disturbing the balance of the body. If you are a right-handed batter let the weight of the body rest upon the right foot, which should be a good twenty inches back of the plate, until the ball has left the pitcher's hand. Then step forward with the left foot in whatever direction and to whatever distance is required. If you are a left-handed batter reverse the position and movement.

USE THE "WRIST MOTION" in hitting the ball; that is, do not swing arms and shoulders back and club at the ball as though you were chopping down a tree, but let the motion come from the wrists and a slight swing of the arms, the shoulders remaining comparatively motionless. Swinging back with the whole upper body disturbs the balance, makes it difficult to judge the ball and renders it possible for the pitcher to do very effective work with an occasional drop which this style of batting is totally unfitted to meet. By using the wrist motion you will be able to wait until the ball is almost up to you before swinging, and so will more often know what you are trying for.

If you can, learn to bat left-handed. All else being

equal, the left-handed man has a far better chance of reaching first, since the very act of hitting starts him in that direction, while the right-handed batsman undergoes a moment of recovery before he can start and then has a greater distance to cover. The superiority of the left-hander's position is strongly shown when it comes to bunting. To tap the ball and get into his stride is almost one motion, and very frequently he is well started before the ball has struck the ground.

When you face the pitcher look as though you had confidence, whether you have or not. To show nervousness is playing into the pitcher's hands. Do not swing your bat back and forth and do not keep shifting your weight or moving your feet about. Take your stand, get into an easy position, keep your eyes on the pitcher until he pitches and then on the ball and don't try for anything that isn't good. A common fault of young players is hunting after all sorts of wild deliveries, reaching far out for them, putting their bats above their heads to pull them down and even trying to scoop them out of the dirt. Their excuse is invariably the same: "I thought if I *did* reach it I could send it!" The art of waiting is one of the most valuable and most difficult to acquire. Remember that you are at the plate to make runs for your team, but not necessarily to score them yourself. If a runner is on second a base on balls is as good fate as can ordinarily happen to you. Don't try to make a home run out of a wild pitch. Insist on having the ball put over the

plate. If the pitcher puts it there try your best to hit it; if he doesn't, trot to first. Play safely if you want to score; a base in the hand is worth four in the bush.

Whatever you do, don't pull away from the plate. Stand up to it—not necessarily on top of it, however—and hit from that position. Don't pull away. Show aggression. Look determined and confident, but don't let overeagerness lead you astray. Be ready to hit the first ball which comes; in many cases the first delivery is a good honest strike, and the batter who allows it to go by because unprepared finds himself half defeated at the outset. When you hit, swing quick and sharp, but don't try to "kill the ball." Don't start while the ball is still far off and swing around slowly in the hope of connecting bat and ball, but wait until the last moment that safety allows and then swing with a snap. In this way you have the ball under observation until it is almost up to you, by which time, if it is a curve, it has "broken" and you know what you are in for.

As a rule, do not advance beyond the plate toward the pitcher; sometimes, however, it is a good idea to step up on a ball and meet it before it curves.

Each player should get a bat that suits him and use it all the time. Nothing will injure one's confidence more than to take a different bat every time he goes to the plate.

BUNTING is a form of batting which has great possibilities. A good bunter, especially if he is a left-handed batter, can "lay the ball down" for a base-hit four

times out of five. The principal thing in bunting is to hold the bat rather loosely and to allow the ball to hit it instead of having it hit the ball. If a pitcher knows you are trying to bunt he will give you only high balls, which are extremely hard to turn into successful bunts. For this reason try to conceal your intention until the delivery is made. Never, save when a desperate measure demands, try to bunt a ball that is not about waist high and over some part of the plate. An extremely low ball is almost as uncertain as a high one, while to go after a wild pitch with your bat held for a bunt is a ridiculous procedure. When meeting a fast ball for a bunt put the bat farther out and draw it back gently so that the ball strikes the stick while the latter is "giving." The bat may be held firmly, but there should be no tight gripping of it. On a slow ball it is best to hold the bat still and deaden the impact by grasping it so loosely that there will be considerable recoil.

Get all the practise you can, and—in practise, not in playing—don't be too particular what sort of a ball is handed you; the ability to hit a poor delivery once in a while is a great advantage, and besides it is only by becoming acquainted with all sorts that you will be able to distinguish readily the good from the bad.

In a game study the pitcher; remember that he will probably try to give you what he thinks you are not expecting; fool him by expecting something else. Keep a sharp watch out for curves. Have confidence in yourself.



BATSMAN, CATCHER, AND UMPIRE.

CHAPTER IV

BASE-RUNNING

THE best base-runner is not necessarily the man who takes the biggest risks nor the fastest runner. Results are what count. Care is just as essential in running bases as in batting; the player who swings at every ball thrown him will have very few hits to his credit, and in the same way the player who tries to steal a base whenever there's one handy will score few runs. As a general thing, it is the man who keeps his eyes wide open, who is quick on his feet, who can run fast and who is not afraid to slide head first or feet first that makes the successful base-runner. The man who really has his eyes wide open is a man who uses care.

GETTING TO FIRST.—In the first place, get to first base. Unless you do you'll find difficulty in doing much running. If you have hit to the infield don't jump to the conclusion that you are out. Get to first as fast as your legs will carry you and don't stop until you have crossed it. Even if you see the ball slam into the baseman's mitt don't slow up; run faster; maybe he will drop it; they often do. If your hit has been a poor one there's all the more reason that your run to first should be a

good one. It often happens that the best infielder is rattled by being hurried, and when you remember that the fielder must pick up your hit and throw it accurately and that first-baseman must catch it and get one foot on the base before you reach it, your chance of getting safely to first doesn't look so dim. Never take it for granted that you are out.

When running to first you are confronted by the question whether to overrun that base or turn for a try for second. If you turn you stand a chance of being put out if first-baseman has the ball before you get back to the bag; moreover, you will have to slow down a little in order not to lose ground on the turn. Unless you know where the ball is, play it safe and overrun. Usually, however, you will have a pretty fair idea of the ball's location and can govern yourself accordingly. On an infield hit hold first. On a fly to outfield turn short and be prepared to go on to second in the event of a muff by the outfielder. On a long drive into left outfield you will usually be safe if you make the turn, while on a similar drive into right outfield you had better overrun, since in the latter case the distance the ball has to cover to reach first is much less. But on all hits that seem to you good for two bases make your turn at first and be ready to go on or retreat as developments require. As a rule do not slide for first base; you can run it out quicker. But if you do, go head first, as it will sometimes make the decision look so close that the umpire will favor you.

GETTING TO SECOND.—In starting for second don't take too much lead. Stand back from the line, get where you are certain of being able to retreat to first ahead of the ball and poise yourself so that you are in good position to either go forward or back. Keep on your toes and don't become "anchored" for an instant. This does not mean that it is necessary to keep jumping up and down like an Indian in a war-dance; that wears you out more than the pitcher. Simply keep your eyes open and be ready any moment to go on to second or back to first. When you return on a throw go back of the baseman and get your right hand on the bag. Move down with the pitcher's arm and back when the catcher receives the ball. Watch out for an unexpected throw to first by the latter. When once started—and a great deal depends, as in a sprint, on that start—never look back; put your eyes on the second-baseman and watch for his catch. If he is standing in front of the bag prepared to make the catch in front of him, slide, if you have to slide, around back, getting the left hand on to the base. In such a case go head foremost. If the baseman has his arms overhead to take a high throw, slide inside of the bag feet foremost. As in running for first, don't take anything for granted; recover instantly, so that in case of a muff you can start out for third. It is in seeing just such chances and making the most of them that good base-runners win out.

GETTING TO THIRD.—If the runner on second takes

a good lead and watches third-baseman carefully third base is not hard to steal; and once there the runner can score on a passed ball or outfield fly. The average pitcher is bothered by the presence of a runner on third base.

COACHING.—Base-running depends largely for its success on the coaches. It is customary for a runner on first to watch the pitcher's arm while the coacher keeps an eye on the baseman. But while the coacher is of great aid to the runner in guarding against a put-out at first on a throw from pitcher or catcher, yet the runner should himself be the judge of the opportunity for a steal, unless, of course, the batsman has signaled for it. With the runner on second the coacher, either from first or third, again gives his attention to the base-man and also to short-stop while the runner watches the ball. The best place from which to coach second is back of third, since the runner's gaze is naturally in that direction and a motion of the coacher's hands is as readily understood as verbal directions. The coach at third may be of assistance to the runner when the latter makes the turn to run for home by bracing him at the base.

SIGNALS well understood by all the players are a necessity and are most valuable in allowing the base-runners and the batsman to work together.

CHAPTER V

FIELDING

FIELDING is the defensive side of baseball. A game could not be won by fielding only, yet, on the other hand, with an absolutely perfect exhibition of fielding a team could prevent the opponents from winning. Team batting, in which the batsman and the base-runners work together, is the perfection of the offensive game; team fielding, in which the battery and the fielders work together, is the perfection of the defensive game. Every man has a duty to perform on every play no matter how far distant from his position that play may be. In the same way every man should know what every other man will do on every play. It is this knowing beforehand what to do yourself and what to expect of your fellow players that constitutes team-play; and it is team-play that wins the game.

THE THEORY OF FIELDING is to get as many men as possible where the attack is; there is strength in numbers. When the ball is hit every fielder save those whose duty it is to "back up" should move in the direction in which the ball is going. This does not mean that they are to leave their own positions unprotected, only that they are to shift slightly toward where the

play is, thus concentrating the team's strength where it will be required. The accompanying diagrams illustrate this principle of concentration, the black dots showing the regular positions of the men, the dotted lines and the circles their movement and positions when the ball is fielded and the arrow the direction and length of the hit.

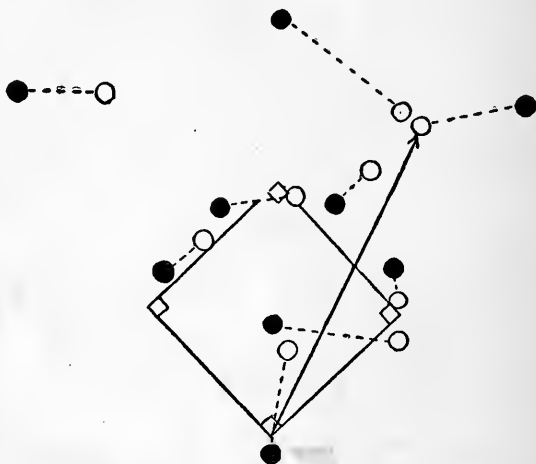


DIAGRAM H.—A fly to right field.

IN DIAGRAM H the hit is a fly into right field. The ball is right-fielder's, but as one man should never be left to field the ball alone center-fielder goes after it also. Presuming that there are no runners on bases, second-baseman starts in the direction taken by the ball and only stops when he sees it safely fielded. Left-fielder also moves toward the ball, since there is no

possibility of its coming into his territory, and if he is nearer the scene of action he may find a chance to make himself useful. Short-stop covers second base, and third-baseman moves over to back him up. Pitcher backs up first base and catcher runs into the infield where he is in position to go to the assistance of any player thereabouts. This is only one arrangement of the team for a play of this sort; several others are possible, and every coach has his own ideas on the subject.

With men on the bases the situation would be altered. For instance, with a runner on second, second-

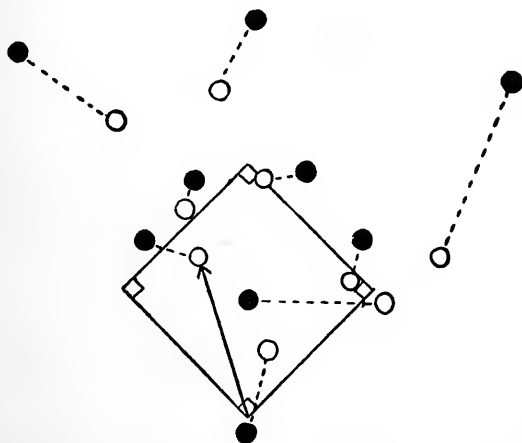


DIAGRAM I.—A ground hit.

baseman would cover his bag and third-baseman would cover his. With a man on third, the catcher would have to guard the plate.

IN DIAGRAM I the hit is a grounder to third-baseman. Short-stop goes to his assistance, supposing as above that the bases are empty. Left-fielder runs in to take the ball in case it gets by the infield. Center-fielder moves toward the play. Pitcher backs up first, and so does right-fielder. Catcher runs into the infield.

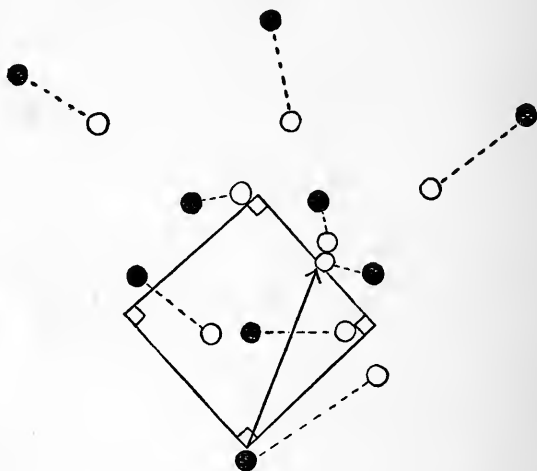


DIAGRAM J.—An infield fly.

IN DIAGRAM J the hit is an infield fly to first-baseman. Second-baseman goes to his aid, as does right-fielder. Pitcher covers first and catcher backs him up. Center-fielder and left-fielder move toward the play. Short-stop covers second base and third-baseman runs into the infield.

IN DIAGRAM K the hit is a slow bunt toward third.

Third-baseman gets the ball. Short-stop goes to aid. Left-fielder comes in, as does center-fielder. Second-baseman covers his bag. Pitcher backs up first and right-fielder comes in for the same purpose. Catcher runs into the infield, being careful not to get into the way of the throw to first.

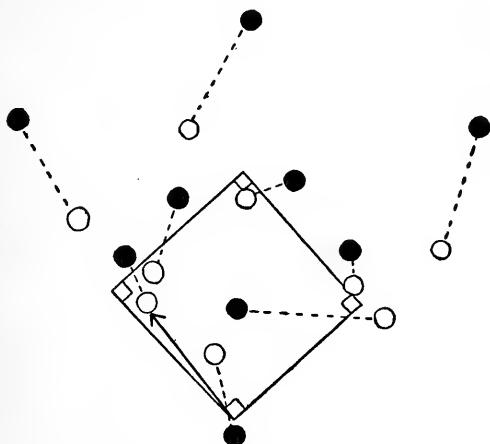


DIAGRAM K.—A bunt toward third base.

Unison of field play is everything; without it there can be no real success.

There can be no arbitrary apportionment of territory among the nine players, but each of them has a certain district to cover which may be said to be his and for the guarding of which he may be held accountable. In a general way these districts are arranged as in Diagram L. The catcher is required to look after all

balls "laid down" in front of the plate and all fouls about the plate and behind it. Pitcher fields flies and bunts as indicated by the arcs, his territory having especially variable boundaries where it adjoins those of

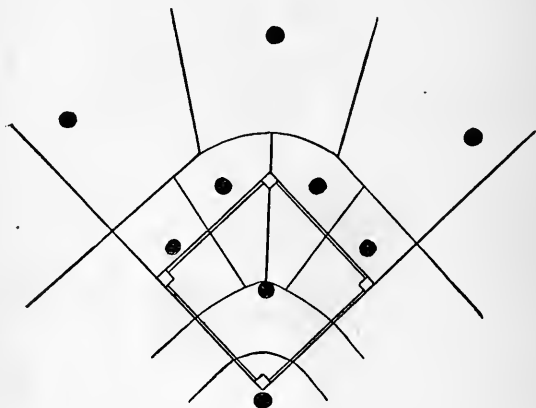


DIAGRAM L.—Approximate apportionment of territory of baseball players.

first-baseman and third-baseman. As a general rule it may be said that any ball that may be obtained by the pitcher while occupying his position or by moving to the right and forward or to the left and forward up to a distance of ten feet from the plate belongs to him.

First-baseman takes all fair balls from the foul line to the second-baseman's territory, and from about ten feet in front of base to fifteen feet back of it. First-baseman and third-baseman should take all fouls not plainly

belonging to the fielders behind them or to the catcher. As a general thing it is best for the pitcher never to try for fouls. The territories of the other players are indicated by the diagram. It is not good policy for the second-baseman or short-stop to go much behind the base-lines for flies.

In every case of a fly ball the man to whom it belongs should be called, if in the infield by the infield captain and if in the outfield by the outfield captain. With a player once called the ball is his and no other player should attempt the catch or claim it, no matter what his opinion in the matter may be.

WHEN THROWING TO BASES fielders should try to put the ball below the baseman's shoulder. A high catch necessitates a long downward motion before the ball can be put on the runner, and besides that is more difficult to catch, and if it does go over the baseman's head means another base for the runner unless the baseman is well backed up.

IN STOPPING GROUNDERS place the heels together and spread the feet at a wide angle. If you miss the ball the chance of its going between your legs is slight. Outfielders in throwing to the plate should try to get the ball into the catcher's hands on a long bounce unless they are sure of getting it to him safely on the fly. Throw to a point *inside* of the plate; never make the catcher move outside of the foul-lines to catch it.

CHAPTER VI

THE POSITIONS—I. THE BATTERY

THE PITCHER shares with the catcher the honor of being the most important member of the nine, while the title of being the hardest-worked member is his without protest. A man who is able to pitch good ball is not necessarily as good a man for the position as one who can pitch not quite so well; there are other things besides pitching ability entering into it. Coolness under the most exciting circumstances, steadiness under all provocation and good judgment in the selection of deliveries are prime essentials. Good nature is not insisted upon, for good nature is very likely to be synonymous with indifference and even laziness. A spice of temper is an excellent thing in a pitcher, just so long as he doesn't let it get the better of him.

It is not possible for any one to learn from a book how to pitch well. Instruction from some one who knows how and constant, patient practise are what are necessary. At the same time it is possible to give here certain instructions which may be advantageously studied by beginners.

THE MUSCLES most concerned in pitching are the arm, shoulder and back muscles. Don't develop a style

which depends entirely upon the arm; if you do you will never make a strong pitcher, but will ultimately give out. Make the back share the work with the arm. Don't go through any more evolutions than necessary; find a position that will allow you to maintain your balance every instant until the ball has left your hand and that will then allow you to recover it at once. If you are not back in position by the time the ball reaches the batter your chance of fielding a ball coming into the box is very small. It is not the contortions gone through with before the delivery that make a pitcher's work effective; skill, strength and control over the ball are what count.

Learn one style and stick to it. Let the swing be long enough to enable you to put speed into the delivery and yet not so long that, when the batsman reaches the base, you must shorten it to hold him there.

CONTROL OF BALL is the first thing to learn. The pitcher who has this, even if his curves are not especially dangerous, will average up better at the end of the season than the brilliant "twirler" who is never quite sure what his delivery is going to be. Speed is effective at times, slowness at other times. Diversify your delivery and puzzle the batsman. For the beginner the out curve, both fast and slow, the in curve, the drop and the slow ball are sufficient when varied with a speedy straight ball.

THE OUT CURVE is obtained by holding the back of

the hand down, the ball being securely held with the thumb and the next two fingers. The motion is a sweeping side-arm motion, the ball leaving the hand over the tip of the first finger. The palm is turned up as the ball leaves it. In the slow out curve the ball is momentarily gripped tightly just as it is released. In the fast out curve the ball is sent away with a snapping motion of the wrist. This ball, sent high, is usually effective against a left-handed batsman.

THE IN CURVE is obtained by gripping the ball as for the out curve, but holding the hand with the little finger toward the ground. The side arm motion is used and the ball goes away under the first two fingers, the palm being brought slightly up.

THE DROP is obtained by holding the ball in the hand as for the out curve, the back of the hand being perfectly flat with relation to the ground. The motion is a distinct overarm motion, the sweep being made above the shoulder and the ball leaving the hand over the tips of the first two fingers. At the moment of delivery the palm is turned sharply down. It is possible by combining a snapping motion of the arm with the wrist turn to make the drop an out curve as well.

THE SLOW BALL.—Recently what is known as the slow ball has been made to do great execution by some pitchers. It is especially effective when following two or three fast balls, as the change of pace is so great as to fool even the most experienced batters. For this the ball is held far back in the palm. The ordinary

motion for a fast ball is used, but a retarding grip with the fingers as it leaves the hand causes it to revolve rapidly and the friction with the air lessens its speed.

The pitcher should study the batsman in every case. If he is timid and undecided a few fast straight balls may send him back to the bench. If he is experienced and determined you will need all your cunning. For a left-handed batsman high curves close in with an occasional slow ball make excellent medicine. When the batsman is looking for a sacrifice keep the ball high, change the pace often and try a slow ball in the hope of having him knock up an infield fly. If he is after a bunt see that the ball never goes to him waist high; offer him everything save that.

Don't depend too much on curves; command a good swift straight ball and rely upon change of pace to relieve you in a tight place. Remember that what you are trying for is to compel the batsman to hit just the ball he doesn't want to. Don't lose sight of the fact that you have a number of men behind you who are waiting for something to do. Don't be afraid to allow hits; it is better to have a batsman fielded out at first than to give him his base. Try to make your first delivery tell; every batsman acknowledges the spice of discouragement that follows upon having the first delivery scored against him.

FIELDING.—A pitcher's duty does not end with pitching the ball; he is also, to some extent, a fielder, and while in this line his work should be as light as

possible yet what he has to do should be done well. His territory is not large, but it is important. On any hit outside of his territory he should run to first base, crossing the base-line ahead of the runner, in order to back up the baseman. This is an important duty. If he has pitched wild or in case of a passed ball he should move toward the plate and cover it instantly when necessary. As a general thing he should not attempt to handle bunts in the direction of third base, since he must turn before he can throw to first. Bunts toward first, unless very short, should be left to that player. On any hit that takes the first-baseman far from base the pitcher should cover first.

Unless an infield hit is where he can get it surely the pitcher should let it alone. If he tries for it and merely succeeds in deflecting it from its course he does more harm than good. Discretion in fielding is very necessary on his part; what to try for and what to let alone is something that will bother him a great deal—at all events, until he has gained some experience. After he has worked with his infielders for a season he will know instantly what to do in any contingency. Until then a good rule to follow is: When in doubt let it go.

THE CATCHER is of scarcely less importance than the other member of the battery. His position is an extremely exacting one and calls for the exercise of much steadiness, good humor, quick judgment and generalship. A cool, steady catcher will often save the day for his team when the pitcher and the entire in-

field are "up in the air." Becoming "rattled" is the one unpardonable sin that a catcher can commit. The more the catcher resembles an inanimate back-stop the more useful he is; a brilliant man is nine times out of ten erratic, and back of the plate is the last place to put an erratic player. Of two men, one of whom is capable of brilliant plays but uncertain withal and the other of whom is slow but practically certain to stop every ball pitched, choose the latter. When certainty in catching is coupled with speed in throwing to bases the ideal catcher is in sight. If besides these merits he is also a man who will not get rattled with three men on bases and the pitcher going to pieces he is a gift from the gods.

THROWING TO BASES.—The good catcher must have a strong throwing arm and be able to use it quickly and with certainty; throwing to bases is almost as important as catching the deliveries. Take a position well under the bat. Experience has shown that this position is much less dangerous than the old one, where the catcher stood some two paces back, and that it renders a pitcher's work more certain. In football it is always the careful player who gets hurt; in the same way it is likely to be the careful catcher, the one who tries to save himself, when the runner comes to the plate, for instance, who is injured. Be aggressive. Keep your left foot slightly in advance of the right, so that by straightening up and taking one step forward with the latter foot you will be in position to throw to

base. The throw to first or third should be a short, quick snap, while to get the ball down to second it is necessary to steady yourself well and make a high over-arm throw, starting the ball with sufficient elevation to have it carry. Of course, if possible, the ball should reach the baseman low enough for him to tag the runner instantly. But the main thing is to get the ball down to him as quickly as you can, and if you do this so that the ball reaches him in time for a put-out he will forgive you much in the matter of location.

Except when a runner has started to steal the catcher should not throw to base unless signaled by the baseman to do so. Don't throw to bases just to be doing it. It is not always necessary to respond to a baseman's call. Use your own judgment in the matter and save your arm whenever you think the situation does not warrant a throw.

SIGNALING.—As a general thing it is best for the catcher to give the signals to the pitcher, although there are pitchers who insist on doing the signaling themselves. The catcher and pitcher should work together like two cog-wheels no matter where the signals emanate. It very often happens that when the signals are given by the catcher the pitcher wants to please himself on some delivery, and so refuses the catcher's signal and sends a signal of his own. In this case the only thing to be careful about is to see that the catcher really understands what is coming. Between two players who have worked together for some time mistakes are not

likely to occur, but where a catcher and a pitcher come together for the first time, even if the signals have been agreed upon between them, occasional mix-ups are not unlikely. In signaling the catcher should use the finger code and hide the fingers from the batsman by putting the right hand between the knees while stooping and placing the mitten above it.

AID THE PITCHER.—It is often a great assistance to the pitcher when inclined to be wild if you will hold the hands above the plate as a target for which he can aim. If a pitcher shows signs of going to pieces call a halt by walking down to him and handing him the ball instead of throwing it, speaking cheerfully and encouragingly as you do so. If the pitcher has got into a streak of throwing wide move over farther toward the batsman, make a target of your hands and, as a general thing, in aiming for them he will get his deliveries over the plate again.

STUDY THE BATSMAN and find out what kind of a ball he wants. Then make sure that he doesn't get it. Keep the body in front of the ball so that you will not have to reach out one way or the other. With the body in front of it the ball will very seldom get by you even if you fail to get your hands on it.

CHAPTER VII

THE POSITIONS (*Continued*)—II. THE INFIELD

FIRST BASE.—Baseball authorities differ widely as to the difficulties of this position. Some state that it is the easiest of the infield points to cover; others that it is the hardest. It is probably neither one nor the other.

The first-baseman should have height and reach, ability to handle every kind of ball ever thrown or batted and that peculiar mixture of courage and recklessness known as "sand." No special mention is made of quickness, since that is a quality necessary to every member of the infield.

With the bases empty the usual position for the first-baseman is about twelve feet back of the base-line and about twenty feet from the foul-line. With a man on first his position is inside of base, where he is able to look after bunts and at the same time take throws from catcher or pitcher. With men on both first and second his position should be a little back of the base-line and about eight feet from first. On a throw from catcher he should take the ball while on the run and block off the runner. He should at all times take ground balls coming into his territory and depend upon

the pitcher to cover first. In the same way, on hits into short right field it is the pitcher's duty to take the base. First-baseman should keep a sharp watch for drives along the base-line, which, if allowed to get by him, are usually good for two bases.

On throws from the outfield to the plate the first-baseman should, whenever possible, back up the catcher. On throws to second from the other side of the outfield he should back up second-baseman.

The first-baseman should take all flies between his base and pitcher unless they are palpably the property of the latter. If a throw comes at him low his first effort should be to block it at all hazards, his next to catch it. Play it safe. He should know what his reach is to right and left and should not make the mistake of missing a throw by trying to keep a foot on base when by taking a step or two he could make it certain.

WITH A RUNNER ON FIRST and a hit made into his territory the first-baseman's quandary is whether to field to second and try to put out the man who has just left first or to play for the batsman. In a case of this sort quick judgment is necessary and whatever course is followed there must be no perceptible hesitation. All things being equal, the play is to retire the runner nearest home, but if that man has obtained a good start and is a clever base-runner it may be that a throw to second would be futile while a throw to first would put out a man. Think quick and act quick is the rule.

AFTER A THROW get back to first as soon as your legs will let you; there may be a chance of a double play. In the same way, after receiving a throw recover instantly and be ready to throw yourself; it may be necessary to spoil an attempt at a steal.

SECOND BASE is perhaps the most important of the infield positions. While the actual physical work performed by second-baseman is not greater than that falling to the lot of first-baseman or short-stop, yet he occupies a place where coolness and judgment are every moment of the utmost value. He is practically on a line with pitcher and batsman and can watch the ball from the time it leaves the former's hands until it reaches the catcher or has been struck. Consequently he is better able to surmise what the hit is to be; while, after the hit is made, he learns the direction of it before any one else save, possibly, the pitcher. For these reasons, and because he has the other infielders and the battery in plain sight every instant, second-baseman should be if possible the infield captain.

Like the first-baseman, he is better fitted for the position if he has sufficient height and length of arm to enable him to cover a wide territory. Very often he is called on to make a stop while going at good speed and throw the ball to base in almost the same instant. He should ordinarily play a deep field, although with a pitcher who is weak at fielding this is not advisable. If he does play well back of the base-line he is exempt from the hot liners which render the third-baseman's

and short-stop's positions difficult, and, because of his nearness to first, is able to handle the ball more carefully.

He should work in perfect unison with the short-stop. The two positions depend upon each other for success, and there should be an absolute understanding as to which is to cover base in every contingency. On a double play with the second-baseman fielding the ball he should toss to short-stop and allow that player to make the put-out at second and the assist to first; if he holds the ball until he has himself run the distance to second and tagged that base he uses up valuable time and may lose the man at first.

IN CATCHING A THROW FROM THE PLATE the second-baseman should take a position to the left of the bag, where he will be able to get at the runner if the latter tries to go back of the base.

He should field short flies, keeping a close watch for balls coming between his position and the pitcher. He should call every ball of this sort if he is acting as infield captain, but in case of a fly coming back of his position and for which he is trying he should be coached by the outfield captain, who will be in a better position to judge the ball.

Second-baseman's duties in certain plays are treated of in the chapter on Team-Play.

SHORT-STOP should be a wide-awake player, quick on his feet and a good strong thrower. He should be able to get away quick, snappy underarm throws as

well as hard overarm throws. The ability to make long throws to first works to his advantage, since it allows him to play a deeper field, thus getting balls which, were he playing up to the base-line, he would be unable to reach. By playing deep he is also able to get flies to short left field and center. Balls taken on the run should be thrown low to first, as a ball sent away while on the run will naturally rise. Slow grounders should be taken between bounds, the short-stop moving in for them and never waiting for them to come out to him. He should be careful to keep his feet together.

Short-stop should study the batsman and watch the delivery. He can very often tell what the hit is to be by observing the ball offered by the pitcher; a right-handed batsman, for instance, will usually drive an out curve to the right of second, while a straight ball to the same batsman will generally go to short-stop or third-baseman. On all hits to the second-baseman's left short-stop should instantly dig out for second and cover that base. He should watch for signals between second and catcher and be ready at any moment to take the bag on a throw down from the plate, although save when there are men on both first and third it is not a good plan to require the short-stop to play the base. He can not obtain too much practise at throwing to first or snapping to second.

The position is dealt with further in the chapter on Team-Play.

THIRD BASE.—If there is one infield position more difficult than the others it is probably third base. The man covering that bag has not the advantage possessed by all other infielders of being able to see about what sort of treatment the batsman is getting, unless the batsman happens to be a left-hander. As a usual thing third-baseman doesn't know what's coming until the ball is almost at him. He has farther to throw to get a ball to first than any of the others and his work in guarding his base from runners is generally harder.

As a rule third-baseman should play fairly deep, coming in when a bunt is expected. He should cross well into short-stop's "front yard" for slow grounders, as he is in position to get to them quicker than short, and once having them, is able to get them away to first in quick order. In a play of this sort he has not time to get into position before throwing, but must get the ball across the diamond at once. For this reason third-baseman should be a good snap thrower.

IN COVERING BASE he needs lots of coolness and judgment. With runners coming down on him in every known style—feet first, head first or twisting—the temptation to look after his own safety and get out of the way is strong. It takes a player with genuine pluck to hold his place in the face of a heavy, desperate runner and catch the ball surely. In a case of this sort he should make the play sure; that is, he should be certain that he has the ball and can "squeeze it" before he attempts to tag the runner. A lost ball, with

the runner able to recover himself quickly and go on, will usually mean a tally. Nine out of ten runners who steal third collide more or less forcibly with the baseman, and so the ability to *hold* the ball, and not merely stop it, is of prime importance.

Third-baseman and short-stop should work well together and know where to find each other in any play.

When running a man down between bases he should go after him fast, start quickly and stop quickly. He should get the runner going fast before he throws the ball.

The duties of third-baseman in special plays are dealt with in the chapter on Team-Play.

CHAPTER VIII

THE POSITIONS (*Concluded*)—III. THE OUTFIELD

OF the three outfield positions that of center field is the hardest, not because more balls go into that territory, but because center has more backing up to do than his neighbors. Left-fielder backs up center, and so does right fielder; center backs up both right-fielder and left-fielder. The outfield positions are popularly supposed to be sinecures, and it is true that inning after inning will very frequently go by in which not a ball gets by the infield. But when the outfielder's work does come it is important. A fly to left field means a man out if caught; if not caught perhaps it means two or even three runs for the opponents. Each fielder has a big territory to cover, and because of their distance from the plate are seldom able to know with any degree of certainty where the hit is to come. They are able to overcome this disadvantage to some extent by studying the batsman and learning from inning to inning what sort of a performance he is likely to offer. Sometimes, too, the pitcher can aid them materially by bringing them in or sending them back or to left or right in anticipation of the batter's hit.

But at all times the outfielder should keep his eyes

on the ball and his mind on the game. It is lonesome work sometimes and the temptation to think of other matters is often very strong. But it won't do; the game's the thing to keep the thoughts on.

MOVING IN.—When the ball is a grounder, move in for it and trust to getting it near the base. To do this it will often be necessary to “smother” it, that is, get the body over it and spoil the bound. If it gets by you it must be taken care of by the player who is backing you up; if you get it you have saved several moments and are in position to make a shorter and therefore faster throw to base. Waiting for a grounder to come out to you and taking it on the bound is playing it safe, but in the case of an outfielder is not advisable. It is better here to risk a little. And besides if the runner sees you moving in on the ball he will be inclined to take fewer chances and will often be satisfied with one base without watching to see whether the ball has passed you.

CATCHING FLIES.—On a long fly back of your position, start the moment the ball leaves the bat; get the direction of the ball first and then try to gauge the distance; run hard, turning once or twice to see that you are going right and are not overrunning; when you stop face about instantly and be ready for the catch. The other outfielders can help you greatly by shouting directions, as “Back! Back!” “Run hard!” “Steady!” and the like. When you start for a ball run your hardest; very often what seems like an impossibility at first

will result in a catch. As soon as you are certain of the ball claim it and then take it for granted that it is yours. Attention to this detail will prevent collisions. As soon as the ball is caught field it home if you are far out or run in with it if you are nearer, keeping an eye on the bases.

IN THROWING TO THE PLATE keep the ball low, recollecting that a liner will rise. A ball that strikes some ten feet from the plate and reaches the catcher on a long bound is the safest of all, since, whatever happens, it is not likely to go over his head. And throw inside of the plate—that is, to your left.

A hard liner into left field from a right-handed batsman will rise perceptibly; look out for that rise and don't run in too far for it.

The outfielders, left and center especially, since they have more throws to the plate than right-fielder, should practise throwing in constantly. In the beginning of the season, however, they can not be too careful about overdoing the practise, for a strain sustained then is likely to handicap them for the remainder of the year.

CHAPTER IX

TEAM-PLAY

TEAM-PLAY is briefly concerted action by all members of the nine toward a common purpose, or, as Mr. W. H. Lewis puts it in his excellent *Primer of College Football*, it is "every man in every play every time." Team-play is quite as essential in baseball as in football, although to the spectator it is less in evidence. As in football, there are two kinds of team-play—offensive and defensive; the first is team batting and the second team fielding. Neither one has as yet been fully developed; there are "combinations" in each still unthought of; but to show what possibilities there are the following examples of both offensive and defensive team-play are given.

TEAM BATTING.—The best-known example of this is what is called the sacrifice hit or "hit-and-run." The first man reaches first. From there it is impossible for him to score on anything less than a three-bagger. Once on second, however, a two-bagger will bring him home with certainty, while, if he is a fast base-runner, he may score on a single. The object, then, is to advance him to second base even at the cost of an out. The man on first makes a fake start—that is, he begins a

dash toward second, but returns to first in time to keep from being thrown out. Batsman watches second base meanwhile and observes whether second-baseman or short-stop runs to cover it. If the former the batsman knows that short right field will be unguarded; if the latter he knows that short left field will be unguarded. As soon as it becomes evident that he is not to be given his base on balls the batsman signals the runner. The latter, on the next delivery, starts with the pitcher's arm and races for second and the batsman drives or tries to drive the ball into right field, in case second-baseman is covering second, or into left field in case short-stop is covering base. The first runner, because of his start, is usually safe on second by the time the ball is fielded, and if he is a speedy man can sometimes make his third while the ball is traveling to first for a put-out there and traveling back to third.

A variation of this play is made by having the batsman signal the man on first to run and then hitting *at* the ball, but not striking it. With an unsteady catcher this often works as well as the sacrifice, especially if the runner is a brilliant base-stealer. It has the added advantage of advancing the man nearest home at no greater cost to the batsman than a strike scored against him. If the play is successful he may still get in his hit and put the runner on third or even home if luck is with him.

BUNTING TO THIRD.—With the score tied or in your opponent's favor and men on first and second you may

resort to bunting. Here third-baseman is your victim. He knows that the man on second will take third at the first chance and is consequently loath to leave his base. Signal to the runners what to expect. Thereupon the man on second plays well off to show his determination to take third and to make third-baseman hug his base. Find a ball to your liking and bunt it slowly toward third-baseman, keeping it as far from pitcher's territory as possible. The runners should start on the instant. Third-baseman must either field the ball and leave his base unprotected or guard his base and allow pitcher to field the ball. In either case he is likely to hesitate for an instant, and when he does get the ball the chances are that it will reach the base too late. He will usually play it to third in hope of cutting off the runner nearest home, in which case the bases will be filled. If, however, seeing that the runner at third can not be reached in time for an out, he should throw to first or second, the man on third should instantly put out for the plate. With a good coacher back of third to brace him on the turn and to send him on he should stand an excellent chance of scoring.

SACRIFICE STEAL.—With a man on first and a man on third and none out a score may often be secured by having the runner on first start out for second while the ball is in the catcher's hands. If catcher throws down to second the man on third, who has been waiting the moment, starts for home at his best clip and ought to score. As soon as he is safely toward the plate the

runner from first is at liberty to save himself if he can do so. If the ball is thrown to the plate, as is likely, he can secure second base. The same play may be tried with the ball in the pitcher's hands. He should sacrifice himself, if necessary, but not otherwise. Plays of this sort involve fast, heady work by those taking part, and so should be brought off, if possible, when the best base-runners can participate.

THE "HIT-AND-RUN" PLAY may also be used when there is a man on third and a run is badly needed. The runner should play well off and be ready to go home on the instant. The batsman gives him the signal and hits a hard drive into outfield or a slow bunt toward first base. The runner, who has reached a distance of twenty feet from base with the pitcher's arm, is off like a shot for the plate. He should take the last ten feet on a head-first slide, since the throw to the plate is likely to be hurried and to go high or wild.

DASH FOR THE PLATE.—A play which may be worked when runs are badly needed and when the catcher is unsteady or temporarily rattled is the following. There is a runner on second and one on third. The man on second plays almost up to third, being certain that the opponents will not throw to second, while the man on third plays as far toward the plate as he dares; a little bit farther than that helps the play. The batsman gives the signal. At the moment the pitcher's arm moves forward the man on third and the man on second dash for the plate. The pitcher's delivery is like-

ly to be poor as he has seen the start for home before the ball has left his hand. The batsman swings at the ball in such a way as to add to the catcher's discomfiture, but is careful not to strike it. Catcher, having the poor delivery and the swing to contend with and knowing that the runners are racing home, is very likely to become sufficiently rattled to drop the ball if not to miss it altogether. The writer has seen this trick tried but twice, but each time it netted two runs. Needless to say it is a risky play and one justified only by desperate circumstances.

ANOTHER TRICK which will sometimes succeed with the catcher somewhat rattled is the following. There is a man on third and a run is needed. The batsman signals the runner when there is one strike and one or more balls called against him, strikes at the next low delivery, tosses aside his bat and puts out for first. The success of the trick depends upon the catcher being sufficiently rattled to throw to first, in case he has not caught the ball, under the supposition that the strike was really the third instead of the second. If he does throw, first-baseman is not expecting it. The runner starts with the throw and should reach the plate before the ball gets back to it. If catcher does not fall a victim to the conspiracy the runner holds his base and the batsman is called back by the umpire. If the attempt has gained nothing it has cost only one strike. With a poor batsman up and two out it is a play worth trying.

These are only a few of the combinations possible in offensive team-play.

TEAM FIELDING.—The defense offers fewer opportunities for team-play than the offense, but is still capable of many clever "combinations." In most of them it is necessary that catcher, pitcher and at least one fielder should participate directly and the rest of the team indirectly. There are several "combinations" in which pitcher, catcher and a baseman work together to retire a base-runner. For instance:

There is a runner on first and a runner on third. The man on first tries to steal second. The second-baseman leaves his bag, which is instantly covered by short-stop, and runs in to a position well in front of the base, keeping his eye on the runner on third and paying no attention to the man on first. The catcher throws to second-baseman. If the man on third tries to go home the second-baseman returns the ball to catcher. If he does not second-baseman sends the ball on to short-stop in an attempt to put out the man from first.

THROW TO CENTER-FIELDER.—A play designed to coax an eager base-runner from first to second and then put him out is that in which center-fielder, second-baseman and catcher are concerned. With a man on first who shows his intention to steal on the slightest provocation let the catcher, second-baseman and center-fielder get together on signal. Center-fielder gradually works in toward second without being noticed. Catcher signals for a ball wide of the batsman. Catcher

throws down to second but puts the ball well over the baseman's head. The runner, who has been playing off from first, sees an opportunity to take second, as he thinks, and makes a run for it. The instant the ball leaves catcher's hand center-fielder races in to a position about thirty or forty feet back of second and catches the throw from the plate, fielding it back to second on the instant and in time to put out the runner. The play is one of the oldest of infield plays and an experienced player will not usually be taken in by it. But if tried on a young player it is likely to succeed.

FORCING THE RUNNER.—There is a way to clear third base of a dangerous runner, supposing there is also a man on second, that will succeed more often than it will fail. There is a runner on third and a runner on second. Let second-baseman play well off to the left of his bag and let short-stop run to the bag several times to make the runner think that he will cover it in case of a throw from the plate. Short-stop then goes back to his position, allowing the runner to take a long lead unchallenged. Second-baseman signals catcher and catcher signals pitcher for a ball wide of the batsman. As soon as the ball leaves the pitcher second-baseman runs for his bag. Catcher throws down instantly. The runner, finding himself cut off from second goes on to third, forcing the man ahead to the plate. Second-baseman throws back there in time to catch him.

FUNDAMENTAL PLAYS.—These are special plays called for by special conditions; there are others

which may be termed fundamental fielding plays which are of more value and which call for quite as much team-play. For instance, if there is a runner on first and the ball is hit to second base or short-stop the play is to second base and then, if there is still time, to first for a double. If every man on the team knows that this is the play and does his part accordingly without hesitation it is a case of team-play; on the other hand if the men have not been drilled in this the throw may go to first, putting the runner out there but allowing the man nearest home, the most dangerous runner, to get to third. In the same way, if, under the same conditions, the ball is hit to first-baseman or to third-baseman, the play is to first. Without a thorough knowledge of team-play the ball in this case may go to second too late to retire the runner from first.

With men on first and third and a hit anywhere save to short infield the play should be to second or first, allowing the man on third to score, since it is probable that he has taken sufficient lead to allow him to beat out the ball if it is thrown to the plate.

When two men are out the play should be for the batsman, since a run made on a third out does not count. An exception to this is made when the hit goes where an easy toss to base is certain to secure a force-out. In these plays every man on the nine should know instantly where the ball ought to go and govern himself accordingly. This is common, every-day team-play and the most important of all. Learn this first and acquire signal plays afterward.

VOCABULARY

ASSIST.—The cooperation of one fielder with a second by which a base-runner is or should be retired.

BAG.—A term applied to either first, second or third base; also called "cushion."

AT BAT.—The side whose turn it is to score or try to score is said to be at bat. The term is applied in the same way to a batsman.

BALK.—A balk is made when a pitcher with the view of deceiving a batsman or a base-runner motions as if to pitch the ball and fails to do so.

BALL.—The leather-covered sphere used in playing the game; a pitched ball which does not pass over the plate at an altitude higher than the batsman's knee and lower than his shoulder and at which he does not strike.

BASE-HIT.—Any hit so made that, barring an error on the part of the opponent, it can not be fielded in time to prevent the batsman from reaching first base.

BASE-LINES.—The lines leading from one base to another and forming the "diamond."

BASEMAN.—A player whose duty it is to guard first, second or third base and to field all balls coming into his territory.

BASE ON BALLS.—First base accorded the batsman when the pitcher has delivered four balls to him.

BASES.—The goals located at the four corners of the infield or diamond to which the players run while making or attempting to make a tally. They are four in number, as follows: first base, second base, third base and home base. They are ninety feet distant from each other. The first three are marked by canvas bags, the latter by a rubber plate set flush with the ground.

BASE-RUNNER.—A batsman who is not put out at the plate becomes a base-runner; also called runner.

- BAT.**—The wooden implement with which the ball is struck.
- BATTING ORDER.**—The order in which players of a side take their turns at bat.
- BATSMAN.**—The player whose turn it is to stand at the home base and hit the ball.
- BATSMAN'S BOX.**—The oblong space six feet by four feet marked out on either side of the home base in which the batsman must stand while striking at the ball.
- BATTERY.**—The pitcher and catcher.
- BLOCK BALL.**—A ball touched while it is in play by any person not actively engaged at the time in the game.
- BOX.**—The space occupied by the pitcher; it applies also to the space occupied by the batsman.
- BUNT.**—A short, slow hit.
- CAGE.**—A mask.
- CALLED GAME.**—A game terminated by the umpire.
- CATCHER.**—The player whose position is behind the home base and who, with the pitcher, comprises the battery.
- CATCHER'S LINES.**—Lines formed back of home base by a continuation of the foul-lines and running to the limits of the field.
- CENTER-FIELDER.**—The player who occupies a position in the outfield between right-fielder and left-fielder.
- CHANCE.**—An opportunity to put out a runner or to assist in putting him out.
- CHANGE OF PACE.**—The substitution of fast balls for slow ones, or *vice versa*, on the part of the pitcher.
- COACHER.**—A player who advises one of his own side while the game is in progress.
- COACHER'S BOX.**—The space situated back of first and of third base in which the coacher must remain.
- COMMAND.**—A pitcher is said to have command of the ball when he is able to put it where he wants it with relation to the plate.
- CURVE.**—A pitched ball which describes an arc. There are several curves recognized, such as the out curve, the in curve and the drop curve.

DEAD BALL.—A pitched ball not struck at which touches any portion of the batter's or umpire's person or clothing without first passing the catcher.

DEEP FIELD.—The far outfield; also, an infielder is said to play a deep field when he takes a position well back from the base-lines.

DIAMOND.—The field of play; more properly the infield.

DROP.—A pitched ball which has a descending curve.

DOUBLE PLAY.—A fielding play by which two of the opponents are retired.

EARNED RUN.—A run made without the aid of opponent's errors.

ERROR.—A misplay by which the opponent profits; specifically, a misplay which allows a batsman or base-runner to make one or more bases when perfect playing would have insured his retirement. Battery errors are not scored as errors.

FAIR BALL.—A pitched ball passing over the home base not lower than the batsman's knee nor higher than his shoulder.

FAIR HIT.—A batted ball remaining in the territory enclosed by the foul-lines until it has passed first or third base.

FIELD.—The place where the game is played; to catch or otherwise recover a batted ball and throw it to a baseman or catcher.

FIELDERS.—All members of a team except pitcher and catcher.

FIRST BASE; FIRST-BASEMAN.—The base to the right of home base and the player whose duty it is to guard it and field all balls in its vicinity.

FLY BALL.—A ball batted into the air, as opposed to one batted to the ground.

FORCED OUT.—A base-runner is forced out, if, when compelled to make room for another runner on a base, he is unable to reach the next base ahead of the ball or is tagged with the ball by an opponent.

FORFEITED GAME.—A game called by an umpire and awarded to one team for any violations of the rules by the other team.

FOUL BALL.—A batted ball which goes into foul ground, except in the case of a foul tip.

FOUL-LINES.—Lines limiting the fair territory and running from the home base through first and third bases to the extremity of the grounds.

FOUL STRIKE.—A ball batted while the batsman is out of position; also a foul-hit ball which under certain conditions is scored a strike.

FOUL TIP.—A foul hit which goes sharp from the bat to the catcher's hands.

FUMBLE.—When a player stops a ball but loses time in handling it he is said to have fumbled or "juggled" the ball.

GAME.—The contest becomes a game after five innings have been played or if declared forfeited by the umpire before that time; a complete game consists of nine innings.

GROUND HIT.—A batted ball striking the ground and continuing along it.

HOME RUN.—A complete circuit of the bases made on a hit.

INNING.—One of the nine periods of play; each inning is divided into halves and each team is at bat for half an inning at a time.

INFIELD.—The space ninety feet square bounded by the baselines.

INFELDERS.—Those playing the infield positions; i. e., first-baseman, second-baseman, short-stop and third-baseman.

INSHOOT.—An in-curved ball.

JUGGLE.—See *Fumble*.

LEFT AT BAT.—A player who is at bat when a third out is made at a base is said to have been left at bat; in which case he is the first man at bat for his side in the next inning.

LEFT-FIELDER.—The player who occupies a position in the left outfield.

LEFT ON BASE.—A runner holding a base when the third man is put out is said to have been left on base.

MASK.—The wire protector worn by the catcher and sometimes by the umpire to protect the face.

MUFF.—A fly ball stopped but not caught.

NINE.—The team of nine players.

"NO GAME."—The ruling of the umpire when the contest is stopped for any reason before five innings have been played.

OUT.—Status of batsman or base-runner after being retired by opponents.

OUT-SHOOT.—An out-curved ball.

OUTFIELDERS.—Right, center and left-fielders.

PASSED BALL.—A pitched ball passing the catcher and allowing a runner to advance a base.

PICK-UP.—A fast ball taken from the ground by a fielder.

PITCHER.—The player who delivers the ball to the batsman and who with the catcher comprises the battery.

PITCHER'S BOX.—The oblong space from which the pitcher must deliver the ball to the batsman.

PLATE.—The home base.

PLAYER'S LINES.—Lines running parallel with and fifty feet back from the foul-lines, starting at the catcher's lines and continuing to the limits of the grounds.

PUT-OUT.—A play by which a batsman or a base-runner is retired.

RIGHT-FIELDER.—The player who occupies a position in the right outfield.

RUN OUT.—A base-runner caught between bases by two or more opponents and tagged with the ball is said to have been run out.

SACRIFICE HIT.—A hit made by a batsman with a view of advancing a runner on bases at the cost of being put out himself.

SECOND BASE; SECOND-BASEMAN.—The base intervening between first base and third base, and the player whose duty it is to guard it and to field all balls in its vicinity.

SCORE.—A record of the contest; each team has a scorer, whose duty it is to set down an official score as the contest proceeds.

SCORER.—See *above*.

SCRATCH HIT.—A hit which by fielders' errors or indecision yields a base and which is not truly a base-hit.

SHORT FIELD.—That part of the outfield just back of the in-

field; also, an infielder is said to be playing a short field when he takes a position in advance of the base-lines.

SHORT-STOP.—The infielder playing the position between second and third bases.

SHUT-OUT.—An inning or a game in which one side prevents the other side from scoring.

SLIDE.—A method of reaching a base to avoid being tagged with the ball by sliding head first or feet first.

STOLEN BASE.—A base obtained by a runner without aid from a hit by a batsman or an error by an opponent.

STRAIGHT BALL.—A pitched ball without curve.

STRIKE.—A pitcher's delivery which is a fair ball or at which the batsman strikes without hitting; also, when not more than one strike has been called, a foul-hit ball not caught on the fly, a bunt into foul territory and a foul tip caught by the batsman while within the lines of his position.

STRIKE-OUT.—A strike-out is made when a batsman, with two strikes called on him, fails to strike at a fair ball or strikes at a ball and does not hit it.

THIRD BASE; THIRD-BASEMAN.—The base intervening between second base and home base, and the player whose duty it is to guard it and to field all balls in its vicinity.

THROWN OUT.—A base-runner is thrown out when the catcher or pitcher throws the ball to a baseman in time to retire him.

TIE GAME.—A game which terminates with the scores even.

"TIME."—The order of the umpire suspending the play.

TIME AT BAT.—The term spent at the bat by a batsman.

TRIPLE PLAY.—A fielding play by which three of the opponents are retired.

UMPIRE.—The official whose duty it is to judge of plays and the conduct of the players.

WILD PITCH.—A ball pitched out of reach of the catcher which allows a base-runner to advance one or more bases.

WILD THROW.—A ball thrown out of reach of the player to whom it was directed.

SCORING

There are a great many systems of scoring a baseball game, a large proportion of which are much too complicated for ordinary use. For the person who wishes to keep a comprehensive record of the game and at the same time have enough leisure left to enjoy the playing the following system will answer very well.

If possible use a regular score-book in which the spaces allotted to each player's turn at bat are divided into five sections, four corner sections and a central section. Begin by numbering the players as follows: Pitcher 1, catcher 2, first-baseman 3, second-baseman 4, third-baseman 5, short-stop 6, left-fielder 7, center-fielder 8, right-fielder 9. Let A, B, and C indicate first, second and third bases respectively. Let b stand for base on balls, K for struck out, T for third strike muffed, L for foul fly caught by catcher, e for drive missed, M for muff and W for wild throw. Let a double cross (XX) signify an unsuccessful attempt to force a runner out and put an s for a stolen base. Make a dot for a run.

On a base-hit mark a cross in the upper left space, pointing the longer arm of the cross in the direction of the hit. If it is a two-base hit make two short arms to the cross, if a three-base hit three short arms and if a home run four short arms. Always score a hit when the drive is too hard or difficult for the fielder to handle. When in doubt favor the batsman.

If a runner reaches first on a base-hit mark your single cross in the upper left space. If he steals second put an s in the upper right space. If he reaches third on third-baseman's fumble of short-stop's throw mark 6-M-5 in the lower left space. If he steals home on a wild throw by first baseman to the plate mark W-3-2 in the lower right space and make a large dot in the central space.

Other examples of scoring by this system are: M-4 muffed fly by second-baseman, e-6 grounder went through short-stop, 9

fly to right-fielder, 6-3 out at first, short-stop to first-baseman, 6-4 out at second, short-stop to second-baseman, 3-A put out by first-baseman unassisted. If a runner is put out mark the central space with a 1, 2 or 3 according as he is the first, second or third out.

If a player is run out between bases an assist as well as a put out should be awarded the fielder, provided he handled the ball previously in the play. Thus, 2-5-1-2 would indicate that catcher had caught a runner off third and had eventually tagged him out at the plate, third-baseman and pitcher assisting in running the man down.

Assists, put outs and errors should be tallied as the game progresses in the columns for that purpose.

BASEBALL RECORDS

IMPORTANT COLLEGE GAMES OF 1903

- May 2—Yale, 5; Pennsylvania, 3.
 May 9—Pennsylvania, 7; Princeton, 3.
 May 16—Harvard, 6; Pennsylvania, 0.
 May 18—Cornell, 7; Pennsylvania, 5.
 May 23—Princeton, 6; Harvard, 5.
 May 30—Yale, 2; Princeton, 1.
 June 6—Princeton, 10; Yale, 6.
 June 13—Princeton, 7; Yale, 6.
 June 13—Harvard, 9; Pennsylvania, 0.
 June 18—Harvard, 5; Yale, 2.
 June 23—Harvard, 10; Yale, 6.

1903 STANDING OF PRINCETON, HARVARD AND YALE

	Princeton.	Harvard.	Yale.	Won.	Per Cent.
Princeton .....	..	1	2	3	.750
Harvard .....	..	..	2	2	.667
Yale	1	..	..	1	.200
Lost	1	1	4		

PRINCETON-YALE GAMES SINCE 1895

- 1895—Yale, 1; Princeton, 0.
 Yale, 9; Princeton, 8.
 1896—Princeton, 13; Yale, 0.
 Yale, 7; Princeton, 5.
 Princeton, 5; Yale, 0.
 Yale, 8; Princeton, 4.
 1897—Yale, 10; Princeton, 9.
 Princeton, 16; Yale, 8.
 Princeton, 4; Yale, 3.
 Princeton, 22; Yale, 8.

- 1898—Princeton, 12; Yale, 7.
Yale, 6; Princeton, 4.
Yale, 8; Princeton, 3.
1899—Yale, 8; Princeton, 0.
Princeton, 6; Yale, 2.
Princeton, 11; Yale, 4.
1900—Princeton, 9; Yale, 3.
Princeton, 5; Yale, 4.
1901—Yale, 9; Princeton, 8.
Princeton, 15; Yale, 5.
Princeton, 5; Yale, 2.
1902—Yale, 10; Princeton, 6.
Princeton, 8; Yale, 5.
Yale, 5; Princeton, 4.
1903—Yale, 2; Princeton, 1.
Princeton, 10; Yale, 6.
Princeton, 7; Yale, 6.

PRINCETON-HARVARD GAMES SINCE 1895

- 1895—Princeton, 7; Harvard, 2.
Princeton, 14; Harvard, 2.
1896—Princeton, 17; Harvard, 9.
Princeton, 8; Harvard, 6.
Harvard, 8; Princeton, 5.
Princeton, 4; Harvard, 2.
1897—Princeton, 6; Harvard, 3.
Harvard, 7; Princeton, 4.
Princeton, 2; Harvard, 0.
1898—Princeton, 12; Harvard, 2.
Princeton, 9; Harvard, 2.
1899—Princeton, 10; Harvard, 2.
Princeton, 12; Harvard, 2.
1900—Harvard, 4; Princeton, 0.
Princeton, 9; Harvard, 2.
1902—Princeton, 7; Harvard, 0.
1903—Princeton, 6; Harvard, 5.

HARVARD-YALE GAMES SINCE 1895

1895—Yale, 7; Harvard, 4.

Yale, 5; Harvard, 0.

1896—No game.

1897—Harvard, 7; Yale, 5.

Harvard, 10; Yale, 8.

1898—Harvard, 9; Yale, 4.

Yale, 7; Harvard, 0.

Yale, 3; Harvard, 1.

1899—Harvard, 4; Yale, 3.

Harvard, 13; Yale, 10.

1900—Yale, 15; Harvard, 5.

Harvard, 3; Yale, 0.

Harvard, 5; Yale, 2.

1901—Harvard, 7; Yale, 3.

Harvard, 3; Yale, 0.

1902—Yale, 7; Harvard, 2.

Harvard, 10; Yale, 4.

Harvard, 6; Yale, 5.

1903—Harvard, 5; Yale, 2.

Harvard, 10; Yale, 6.

ADDITIONAL RECORDS



BASEBALL RULES FOR 1904

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THE BALL-GROUND

Rule 1

The ball-ground must be enclosed and sufficient in size to permit the players of the team not at bat to be stationed at the positions respectively assigned to them by their captain. To obviate the necessity for ground rules, the shortest distance from a fence or stand on fair territory to the home base should be 235 feet, and from home base to the grand stand, 90 feet.

TO LAY OFF THE FIELD

Rule 2

To lay off the lines defining the location of the several bases, the catcher's and the pitcher's position, and establishing the boundaries required in playing the game of baseball, proceed as follows:

DIAMOND OR INFIELD

From a point, A, within the grounds, project a straight line out into the field, and at a point, B, 154 feet from point A, lay off lines B C and B D at right angles to the line A B; then, with B as a center and 63.63945 feet as a radius, describe arcs cutting the lines B A at F and B C at G, B D at H and B E at I. Draw lines F G, G E, E H, and H F, which said lines shall be the containing lines of the diamond or infield.

THE CATCHER'S LINES

Rule 3

With F as a center and 10 feet radius, describe an arc cutting line F A at L, and draw lines L M and L O at right angles to F A, and continue same out from F A not less than 10 feet.

THE FOUL-LINES

Rule 4

From the intersection point, F, continue the straight lines F G and F H until they intersect the lines L M and L O, and then from the points G and H in the opposite direction until they reach the boundary-lines of the ground.

THE PLAYER'S LINES

Rule 5

With F as center and 50 feet radius, describe arcs cutting lines F O and F M at P and Q; then, with F as center again and 75 feet radius, describe arcs cutting F G and F H at R and S; then, from the points P, Q, R, and S draw lines at right angles to the lines F O, F M, F G, and F H, and continue the same until they intersect at the points T and W.

THE COACHER'S LINES

Rule 6

With R and S as centers and 15 feet radius, describe arcs cutting the lines R W and S T at X and Y, and from the points X and Y draw lines parallel with the lines F H and F G, and continue same out to the boundary-lines of the ground.

THE THREE-FOOT LINE

Rule 7

With F as a center and 45 feet radius, describe an arc cutting the line F G at 1, and from 1 to the distance of three feet draw a line at right angles to F G, and marked point 2; then from point 2 draw a line parallel with the line F G to a point three feet beyond the point G, marked 3; then from the point 3 draw a line at right angles to line 2, 3, back to and intersecting with F G, and from thence back along the line G F to point 1.

THE BATSMAN'S LINES

Rule 8

On either side of the line A F B describe two parallelograms six feet long and four feet wide (marked 8 and 9), their longest side being parallel with the line A F B, their distance apart being six inches added to each end of the length of the diagonal of the square within the angle F, and the center of their length being on said diagonal.

THE PITCHER'S PLATE

Rule 9

SECTION 1.—With point F as centre and 60.5 feet as radius describe an arc cutting the line F B at line 4, and draw a line 5, 6, passing through point 4 and extending 12 inches on either side of line F B; then with line 5, 6, as a side, describe a parallelogram 24 inches by 6 inches, in which shall be located the pitcher's plate.

SEC. 2.—The pitcher's plate shall not be more than 15 inches higher than the base-lines or the home plate, which shall be level with the surface of the field, and the slope from the pitcher's plate to every base-line and the home plate shall be gradual.

THE BASES

Rule 10

SECTION 1.—Within the angle F, describe a five-sided figure, two of the sides of which shall coincide with the lines F G and F H to the extent of 12 inches each, thence parallel with the line F B $8\frac{1}{2}$ inches to the points X and Y, a straight line between which, 17 inches, will form the front of the home base or plate.

SEC. 2.—Within the angles at G, I, and H describe squares, whose sides are 15 inches in length, two of such sides of which squares shall lie along the lines F G and G I, G I and I H, I H and H F, which squares shall be the location of the first, second and third bases respectively.

Rule 11

The home base at F and the Pitcher's Plate at 4 must each be of whitened rubber, and so fixed in the ground as to be even with its surface.

Rule 12

The first base at G, the second base at E, and the third base at H must each be a white canvas bag filled with soft material and securely fastened in place at the point specified for it in Rule 9.

Rule 13

The lines described in Rules 3, 4, 5, 6, 7, and 8 must be marked with lime, chalk or other white material, easily distinguishable from the ground or grass.

THE BALL

Rule 14

SECTION 1.—The ball must weigh not less than five nor more than five and one-quarter ounces avoirdupois, and measure not less than nine nor more than nine and one-quarter inches in circumference. The Spalding National League Ball or the Reach American League Ball must be used in all games played under these rules.

SEC. 2.—Two regulation balls of the make adopted by the League of which the contesting clubs are members, shall be delivered by the home club to the umpire at or before the hour for the commencement of a championship game. If the ball first placed in play be batted or thrown out of the grounds or into one of the stands for spectators, or, in the judgment of the umpire, become unfit for play from any cause, the umpire shall at once deliver the alternate ball to the pitcher and another legal ball shall be supplied to him, so that he shall at all times have in his control one or more alternate balls to substitute for the ball in play in any of the contingencies above set forth. Provided, however, that all balls batted or thrown out of the

ground or into a stand, shall, when returned to the field, be given into the custody of the umpire immediately and become alternate balls, and so long as he has in his possession two or more alternate balls, he shall not call for a new ball to replace a ball that has gone out of play. The alternate balls shall become the ball in play in the order in which they were delivered to the umpire.

SEC. 3.—Immediately upon the delivery to him of the alternate ball by the umpire, the pitcher shall take his position and on the call of "Play," by the umpire, it shall become the ball in play. Provided, however, that play shall not be resumed with the alternate ball when a fair batted ball or a ball thrown by a fielder goes out of the ground or into a stand for spectators until the base-runners have completed the circuit of the bases unless compelled to stop at second or third base in compliance with a ground rule.

DISCOLORED OR DAMAGED BALLS

SEC. 4.—The ball in play shall not be intentionally discolored by rubbing it with the soil or otherwise damaged. In the event of a new ball being intentionally discolored, or damaged by a player, the umpire shall, upon appeal by the captain of the opposite side, forthwith demand the return of that ball and substitute for it another legal ball, as hereinbefore described, and impose a fine of \$5.00 on the offending player.

HOME CLUB TO PROVIDE BALLS

SEC. 5.—In every game the balls played with shall be furnished by the home club, and the last in play shall become the property of the winning club. Each ball shall be enclosed in a paper box, sealed with the seal of the secretary of the League and bearing his certificate that he has examined, measured and weighed it, and that it is of the required standard in all respects. The seal shall not be broken by the umpire except in the presence of the captains of the contesting teams after "Play" has been called.

RESERVE BALLS ON FIELD

SEC. 6.—The home club shall have at least a dozen regulation balls on the field during each championship game, ready for use on the call of the umpire.

UNFIT BALL FOR PLAY

SEC. 7.—Should the ball become ripped or in any way damaged so as to be, in the opinion of the umpire, unfit for use, he shall, upon appeal by either captain, at once call for a new ball and put the alternate ball into play.

THE BAT

Rule 15

The bat must be round, not over two and three-fourth inches in diameter at the thickest part, nor more than 42 inches in length, and entirely of hardwood, except that, for a distance of 18 inches from the end, twine may be wound around or a granulated substance applied to the handle.

NUMBER OF PLAYERS IN A GAME

Rule 16

The players of each club, actively engaged in a game at one time, shall be nine in number, one of whom shall act as captain; and in no case shall more or less than nine men be allowed to play on a side in a game.

POSITIONS OF THE PLAYERS

Rule 17

The players may be stationed at any point of the field their captain may elect, regardless of their respective positions, except that the pitcher, while in the act of delivering the ball to the bat, must take his position as defined in Rules 9 and 30; and the catcher must be within the lines of his position as defined in Rule 3 and within 10 feet of home base, whenever the pitcher delivers the ball to the bat.

MUST NOT MINGLE WITH SPECTATORS

Rule 18

Players in uniform shall not be permitted to occupy seats in the stands, or to mingle with the spectators.

UNIFORMS OF PLAYERS

Rule 19

Every club shall adopt two uniforms for its players, one to be worn in games at home and the other in games abroad, and the suits of each of the uniforms of a team shall conform in color and style. No player who shall attach anything to the sole or heel of his shoe other than the ordinary baseball shoe-plate, or who shall appear in a uniform not conforming to the suits of the other members of his team, shall be permitted to take part in a game.

SIZE AND WEIGHT OF GLOVES

Rule 20

The catcher or first baseman may wear a glove or mitt of any size, shape or weight. Every other player is restricted to the use of a glove or mitt weighing not over 10 ounces and measuring not over 14 inches around the palm.

PLAYERS' BENCHES

Rule 21

SECTION 1.—Players' benches must be furnished by the home club and placed upon a portion of the ground not less than twenty-five (25) feet outside of the players' lines. One such bench shall be for the exclusive use of the visiting team and the other for the exclusive use of the home team. Each bench must be covered with a roof and closed at the back and each end; a space, however, not more than six (6) inches wide may be left under the roof for ventilation. All players and substitutes of the side at bat must be seated on their team's bench, except the

batsman, base-runners and such as are legally assigned to coach base-runners. Under no circumstances shall the umpire permit any person except the players and substitutes in uniform and the manager of the team entitled to its exclusive use to be seated on a bench.

PENALTY FOR VIOLATION

SEC. 2.—To enforce this rule the captain of the other side may call the attention of the umpire to its violation by his opponents, whereupon the umpire shall immediately order such player or players as have disregarded it to be seated. If the order be not obeyed within one minute the offending player or players shall be fined \$5.00 each by the umpire. If the order be not then obeyed within one minute, the offending player or players shall be debarred from further participation in the game, and shall be obliged to forthwith leave the playing-field.

A REGULATION GAME

Rule 22

Every championship game must be commenced not later than two hours before sunset and shall continue until each team has had nine innings, provided, however, that the game shall terminate:

- (1) If the side at bat scores less runs in nine innings than the other side has scored in eight innings.
- (2) If the side last at bat in the ninth inning scored the winning run before the third man was out.

EXTRA-INNING GAMES

Rule 23

If the score be a tie at the end of nine (9) innings for each team, play shall be continued until one side has scored more runs than the other in an equal number of innings, provided, that if the side last at bat score the winning run before the third man is out in any inning after the ninth, the game shall terminate.

DRAWN GAMES

Rule 24'

A drawn game shall be declared by the umpire if the score is equal on the last even inning played when he terminates play on account of darkness, rain, fire, panic, or for other cause which puts patrons or players in peril, after five or more equal innings have been played by each team. But if the side that went second to bat is at the bat when the game is terminated, and has scored the same number of runs as the other side, the umpire shall declare the game drawn without regard to the score at the last equal inning.

CALLED GAMES

Rule 25

If the umpire call "Game" on account of darkness, rain, fire, panic, or other cause which puts patrons or players in peril, at any time after five innings have been completed, the score shall be that of the last equal innings played, but if the side second at bat shall have scored in an unequal number of innings, or before the completion of the unfinished inning, one or more runs than the side first at bat, the score of the game shall be the total number of runs each team has made.

FORFEITED GAMES

Rule 26

A forfeited game shall be declared by the umpire in favor of the club not in fault, at the request of such club, in the following cases:

SECTION 1.—If the team of a club fail to appear upon the field, or, being upon the field, refuse to begin a game for which it is scheduled or assigned, within five minutes after the umpire has called "Play" at the hour for the beginning of the game, unless such delay in appearing, or in commencing the game, be unavoidable.

SEC. 2.—If, after the game has begun, one side refuse to

continue to play, unless the game has been suspended or terminated by the umpire.

SEC. 3.—If, after play has been suspended by the umpire, one side fail to resume playing in one minute after the umpire has called "Play."

SEC. 4.—If a team employ tactics palpably designed to delay the game.

SEC. 5.—If, after warning by the umpire, any one of the rules of the game be wilfully and persistently violated.

SEC. 6.—If the order for the removal of a player, as authorized by Rules 21, 58 and 64, be not obeyed within one minute.

SEC. 7.—If, because of the removal of players from the game by the umpire, or for any cause, there be less than nine players on either team.

SEC. 8.—If, when two games are scheduled to be played in one afternoon, the second game be not commenced within ten minutes of the time of the completion of the first game. The umpire of the first game shall be the timekeeper.

SEC. 9.—In case the umpire declare the game forfeited, he shall transmit a written report thereof to the president of the League within twenty-four hours thereafter. However, a failure on the part of the umpire to so notify the president shall not affect the validity of his award of the game by forfeiture.

NO GAME

Rule 27

"No game" shall be declared by the umpire if he terminates play on account of rain or darkness, fire, panic, or any other cause which puts the patrons or players in peril before five innings are completed by each team. Provided, however, that if the club second at bat shall have made more runs at the end of its fourth inning than the club first at bat has made in five completed innings of a game so terminated, the umpire shall award the game to the club having made the greater number of runs, and it shall count as a legal game in the championship record.

SUBSTITUTES

Rule 28

SECTION 1.—Each side shall be required to have present on the field during a championship game a sufficient number of substitute players in uniform, conforming to the suits worn by their team-mates, to carry out the provisions of this code, which requires that not less than nine players shall occupy the field in any inning of the game.

SEC. 2.—Any such substitute may at any stage of the game take the place of a player, whose name is in his team's batting order, but the player whom he succeeds shall not thereafter participate in that game.

SEC. 3.—A base-runner shall not have another player whose name appears in the batting order of his team run for him except by the consent of the captain of the other team.

CHOICE OF INNINGS—FITNESS OF FIELD FOR PLAY

Rule 29

The choice of innings shall be given to the captain of the home club, who shall be the sole judge of the fitness of the ground for beginning a game after a rain; but, after play has been called by the umpire, he alone shall be the judge as to the fitness of the ground for resuming play after the game has been suspended on account of rain.

THE PITCHING RULES

DELIVERY OF THE BALL TO THE BAT

Rule 30

Preliminary to pitching, the pitcher shall take his position facing the batsman with both feet squarely on the ground and in front of the pitcher's plate; and in the act of delivering the ball to the bat he must keep one foot in contact with the pitcher's

plate defined in Rule 9. He shall not raise either foot until in the act of delivering the ball to the bat, nor make more than one step in such delivery.

A FAIRLY DELIVERED BALL

Rule 31

A fairly delivered ball is a ball pitched or thrown to the bat by the pitcher while standing in his position and facing the batsman, that passes over any portion of the home base, not lower than the batsman's knee, nor higher than his shoulder. For every such fairly delivered ball, the umpire shall call one strike.

AN UNFAIRLY DELIVERED BALL

Rule 32

An unfairly delivered ball is a ball delivered to the bat by the pitcher while standing in his position and facing the batsman, that does not pass over any portion of the home base between the batsman's shoulder and knee. For every unfairly delivered ball, the umpire shall call one ball.

DELAYING THE GAME

Rule 33

SECTION 1.—If, after the batsman be standing in his proper position ready to strike at a pitched ball, the ball be thrown by the pitcher to any player other than the catcher when in the catcher's lines and within 10 feet of the home base (except in an attempt to retire a base-runner), each ball so thrown shall be called a ball.

SEC. 2.—The umpire shall call a ball on the pitcher each time he delays the game by failing to deliver the ball to the batsman for a longer period than 20 seconds, excepting that at the commencement of each inning, or when a pitcher relieves another, the pitcher may occupy one minute in delivering not to exceed five balls to the catcher or an infielder, during which time play shall be suspended.

BALKING

Rule 34

A balk shall be:

SECTION 1.—Any motion made by the pitcher while in position to deliver the ball to the bat without delivering it, or to throw to first base when occupied by a base-runner, without completing the throw.

SEC. 2.—Throwing the ball by the pitcher to any base to catch the base-runner without stepping directly toward such base, in the act of making such throw.

SEC. 3.—Any delivery of the ball to the bat by the pitcher while either foot is back of the pitcher's plate.

SEC. 4.—Any delivery of the ball to the bat by the pitcher, while he is not facing the batsman.

SEC. 5.—Any motion in delivering the ball to the bat by the pitcher while not in the position defined by Rule 30.

SEC. 6.—Holding of the ball by the pitcher so long as, in the opinion of the umpire, to unnecessarily delay the game.

SEC. 7.—Making any motion to pitch while standing in his position without having the ball in his possession.

SEC. 8.—Making any motion of the arm, shoulder, hip, or body the pitcher habitually makes in his method of delivery, without immediately delivering the ball to the bat.

SEC. 9.—Delivery of the ball to the bat when the catcher is standing outside the lines of the catcher's position as defined in Rule 3.

If the pitcher shall fail to comply with the requirements of any section of this rule, the umpire shall call a "balk."

DEAD BALL

Rule 35

A dead ball is a ball delivered to the bat by the pitcher, not struck at by the batsman, that touches any part of the batsman's person or clothing while standing in his position, or that before passing or getting beyond the control of the catcher touches any part of the clothing or person of the umpire while he is on foul ground.

BALL NOT IN PLAY

Rule 36

In case of a foul strike, foul-hit ball not legally caught, dead ball, or a fair-hit ball touching a base-runner, the ball shall not be considered in play until it be held by the pitcher standing in his position, and the umpire shall have called "Play."

BLOCK BALLS

Rule 37

SECTION 1.—A block is a batted or thrown ball that is touched, stopped or handled by a person not engaged in the game.

SEC. 2.—Whenever a block occurs the umpire shall declare it, and base-runners may run the bases without liability to be put out until the ball has been returned to and held by the pitcher in his position.

SEC. 3.—If the person not engaged in the game should retain possession of a blocked ball, or throw or kick it beyond the reach of the fielders, the umpire shall call "Time" and require each base-runner to stop at the base last touched by him until the ball be returned to the pitcher in his position and the umpire shall have called "Play."

THE BATTING RULES

THE BATSMAN'S POSITION

Rule 38

Each player of the side at bat shall become the batsman and must take his position within the batsman's lines (as defined in Rule 8) in the order that his name appears in his team's batting-list.

THE ORDER OF BATTING

Rule 39

The batting order of each team must be delivered before the game by its captain to the umpire, who shall submit it to the inspection of the captain of the other side. The batting order

delivered to the umpire must be followed throughout the game unless a player be substituted for another, in which case the substitute must take the place in the batting order of the retired player.

THE FIRST BATSMAN IN AN INNING

Rule 40

After the first inning the first striker in each inning shall be the batsman whose name follows that of the last man who completed his "time at bat" in the preceding inning.

PLAYERS BELONG ON BENCH

Rule 41

When a side goes to the bat its players must immediately seat themselves on the bench assigned to them as defined in Rule 21, and remain there until their side is put out, except when called to the bat or to act as coaches or substitute base-runners.

RESERVED FOR UMPIRE, CATCHER, AND BATSMAN

Rule 42

No player of the side "at bat," except the batsman, shall occupy any portion of the space within the catcher's lines as defined in Rule 3. The triangular space back of the home base is reserved for the exclusive use of the umpire, catcher and batsman, and the umpire must prohibit any player of the side "at bat" from crossing the same at any time while the ball is in the hands of the pitcher or catcher or passing between them while standing in their positions.

FIELDER HAS RIGHT OF WAY

Rule 43

The players of the side at bat must speedily abandon their bench and hasten to another part of the field when by remaining upon or near it they or any of them would interfere with a fielder in an attempt to catch or handle a thrown ball.

THE BATTING RULES

A FAIR HIT

Rule 44

A fair hit is a legally batted ball that settles on fair ground between home and first base or between home and third base, or that is on fair ground when bounding to the outfield past first or third base, or that first falls on fair territory beyond first or third base, or that touches the person of the umpire or a player while on fair ground.

A FOUL HIT

Rule 45

A foul hit is a legally batted ball that settles on foul territory between home and first base or home and third base, or that bounds past first or third base on foul territory, or that falls on foul territory beyond first or third base, or touches the person of the umpire or a player while on foul ground.

A FOUL TIP

Rule 46

A foul tip is a ball batted by the batsman while standing within the lines of his position, that goes sharp and direct from the bat to the catcher's hands and is legally caught.

A BUNT HIT

Rule 47

A bunt hit is a legally batted ball, not swung at, but met with the bat and tapped slowly within the infield by the batsman with the expectation of reaching first base before the ball can be fielded to that base. If the attempt to bunt result in a foul, a strike shall be called by the umpire.

BALLS BATTED OUTSIDE THE GROUND

Rule 48

SECTION 1.—When a batted ball passes outside the ground or into a stand the umpire shall decide it fair or foul according to whether the point at which it leaves the playing field is on fair or foul territory.

SEC. 2.—A fair batted ball that goes over the fence or into a stand shall entitle the batsman to a home run unless it should pass out of the ground or into a stand at a less distance than two hundred and thirty-five (235) feet from the home base, in which case the batsman shall be entitled to two bases only. The point at which a fence or stand is less than 235 feet from the home base shall be plainly indicated by a white or black sign or mark for the umpire's guidance.

STRIKES

Rule 49

A strike is:

SECTION 1.—A pitched ball struck at by the batsman without its touching his bat; or,

SEC. 2.—A fair ball legally delivered by the pitcher at which the batsman does not strike.

SEC. 3.—A foul-hit ball not caught on the fly unless the batsman has two strikes.

SEC. 4.—An attempt to bunt which results in a foul.

SEC. 5.—A pitched ball, at which the batsman strikes but misses and which touches any part of his person.

SEC. 6.—A foul tip, held by the catcher, while standing within the lines of his position.

FOUL STRIKE

Rule 50

A "Foul Strike" is a ball batted by the batsman when either or both of his feet is upon the ground outside the lines of the batsman's position.

WHEN BATSMAN IS OUT

Rule 51

The batsman is out:

SECTION 1.—If he fail to take his position at the bat in the order in which his name is on the batting list unless the error be discovered and the proper batsman replace him before a time “at bat” is recorded, in which case, the balls and strikes called must be counted in the time “at bat” of the proper batsman. But only the proper batsman shall be declared out, and no runs shall be scored or bases run because of any act of the improper batsman. Provided, this rule shall not be enforced unless the out be declared before the ball be delivered to the succeeding batsman. Should the batsman declared out under this section be the third hand out and his side be thereby put out, the proper batsman in the next inning shall be the player who would have come to bat had the players been put out by ordinary play in the preceding inning.

SEC. 2.—If he fail to take his position within one minute after the umpire has called for the batsman.

SEC. 3.—If he make a foul hit other than a foul tip, as defined in Rule 46, and the ball be momentarily held by a fielder before touching the ground; provided, it be not caught in a fielder's cap, protector, pocket or other part of his uniform, or strike some object other than a fielder before being caught.

SEC. 4.—If he make a foul strike, as defined in Rule 50.

SEC. 5.—If he attempt to hinder the catcher from fielding or throwing the ball by stepping outside the lines of the batsman's position, or in any way obstructing or interfering with that player.

SEC. 6.—If, while first base be occupied by a base-runner, three strikes be called on him by the umpire, unless two men are already out.

SEC. 7.—If, while attempting a third strike, the ball touch any part of the batsman's person, in which case base-runners occupying bases shall not advance, as prescribed in Rule 55, Section 5.

SEC. 8.—If, before two hands are out, while first and second or first, second and third bases are occupied, he hit a fly-ball, other than a line-drive, that can be handled by an infielder. In such case the umpire shall, as soon as the ball be hit, declare it an infield or outfield hit.

SEC. 9.—If the third strike be called in accordance with Rule 49, Section 5.

BATSMAN MUST OBEY CALL

SEC. 10.—The moment a batsman's term at bat ends, the umpire shall call for the batsman next in order to leave his seat on the bench and take his position at the bat, and no player of the batting side shall leave his seat on the bench until so called to bat, except to become a coacher or substitute base-runner, to take the place of a player on his team's batting list, to comply with the umpire's order to leave the field, or to make way for a fielder.

BASE-RUNNING RULES

LEGAL ORDER OF BASES

Rule 52

The base-runner must touch each base in legal order, viz., first, second, third and home bases; and when obliged to return while the ball is in play, must retouch the base or bases in reverse order. He can only acquire the right to a base by touching it, before having been put out, and shall then be entitled to hold such base until he has legally touched the next base in order, or has been legally forced to vacate it for a succeeding base-runner. However, no base-runner shall score a run to count in the game, ahead of the base-runner preceding him in the batting order, if there be such preceding base-runner who has not been put out in that inning.

WHEN THE BATSMAN BECOMES A BASE-RUNNER

Rule 53

The batsman becomes a base-runner:

SECTION 1.—Instantly after he makes a fair hit.

SEC. 2.—Instantly after "Four Balls" have been called by the umpire.

SEC. 3.—Instantly after "Three Strikes" have been declared by the umpire.

SEC. 4.—If, without making any attempt to strike at the ball, his person or clothing be hit by a pitched ball unless, in the opinion of the umpire, he plainly make no effort to get out of the way of the pitched ball and purposely permit himself to be hit.

SEC. 5.—If the catcher interfere with him in, or prevent him from, striking at a pitched ball.

ENTITLED TO BASES

Rule 54

The base-runner shall be entitled, without liability to be put out, to advance a base in the following cases:

SECTION 1.—If, while the batsman, the umpire calls "Four Balls," or award him first base by being hit by a pitched ball or for being interfered with by the catcher in striking at a pitched ball.

SEC. 2.—If, while the batsman, a fair-hit ball strike the person or clothing of the umpire or a base-runner on fair ground.

SEC. 3.—If the umpire award to a succeeding batsman a base on four balls, or for being hit by a pitched ball, or being interfered with by the catcher in striking at a pitched ball and the base-runner be thereby forced to vacate the base held by him.

SEC. 4.—If the umpire call a "Balk."

SEC. 5.—If a ball delivered by the pitcher pass the catcher and touch the umpire or any fence or building within ninety (90) feet of the home base.

SEC. 6.—If he be prevented from making a base by the obstruction of a fielder, unless the latter have the ball in his hand ready to touch the base-runner.

SEC. 7.—If the fielder stop or catch a batted ball with his cap, glove or any part of his uniform, while detached from its proper place on his person.

RETURNING TO BASES

Rule 55

The base-runner shall return to his base without liability to be put out:

SECTION 1.—If the umpire declare a foul tip (as defined in Rule 46) or any other foul hit, not legally caught by a fielder.

SEC. 2.—If the umpire declare a foul strike.

SEC. 3.—If the umpire declare a dead ball, unless it be also the fourth unfair ball, and he be thereby forced to take the next base, as provided in Rule 54, Section 3.

SEC. 4.—If the person or clothing of the umpire interfere with the catcher in an attempt to throw or the umpire be struck by a ball thrown by the catcher or other fielder to intercept a base-runner.

SEC. 5.—If a pitched ball at which the batsman strikes, but misses, touch any part of the batsman's person.

SEC. 6.—In any and all of these cases the base-runner is not required to touch the intervening bases in returning to the base he is legally entitled to.

WHEN BASE-RUNNERS ARE OUT

Rule 56

The base-runner is out:

SECTION 1.—If, after three strikes have been declared against him while the batsman, the third-strike ball be not legally caught and he plainly attempts to hinder the catcher from fielding the ball.

SEC. 2.—If, having made a fair hit while batsman, such fair-hit ball be momentarily held by a fielder before touching the ground or any object other than a fielder; provided, if it be not

caught in a fielder's hat, cap, protector, pocket or other part of his uniform.

SEC. 3.—If, when the umpire has declared "Three Strikes" on him while the batsman, the third-strike ball be momentarily held by a fielder before touching the ground; provided, if it be not caught in a fielder's cap, protector, pocket or other part of his uniform, or touch some object other than a fielder before being caught.

SEC. 4.—If, after three strikes or a fair hit, he be touched with the ball in the hand of a fielder before he shall have touched first base.

SEC. 5.—If, after three strikes or a fair hit, the ball be securely held by a fielder while touching first base with any part of his person before such base-runner touch first base.

SEC. 6.—If, in running the last half of the distance from home base to first base, while the ball is being fielded to first base, he run outside the three-foot lines, as defined in Rule 7, unless he do so to avoid a fielder attempting to field a batted ball.

SEC. 7.—If, in running from first to second base, from second to third base, or from third to home base, he run more than three feet from a direct line between a base and the next one in regular or reverse order to avoid being touched by a ball in the hands of a fielder. But in case a field be occupying a base-runner's proper path in attempting to field a batted ball, then the base-runner shall run out of direct line to the next base and behind said fielder and shall not be declared out for so doing.

SEC. 8.—If he fail to avoid a fielder attempting to field a batted ball, in the manner described in Sections 6 and 7 of this rule, or in any way obstruct a fielder in attempting to field a batted ball, or intentionally interfere with a thrown ball; provided, that if two or more fielders attempt to field a batted ball, and the base-runner come in contact with one or more of them, the umpire shall determine which fielder is entitled to the benefit of this rule, and shall not decide the base-runner out for coming in contact with a fielder other than the one the umpire determines to be entitled to field such batted ball.

SEC. 9.—If, at any time while the ball is in play, he be touched by the ball in the hands of a fielder, unless some part of his person be touching the base he is entitled to occupy; provided, however, that the ball be held by the fielder after touching him, unless the base-runner deliberately knock it out of his hand.

SEC. 10.—If, when a fair or foul hit ball (other than a foul tip as defined in Rule 46) be legally caught by a fielder, such ball be legally held by a fielder on the base occupied by the base-runner when such ball was batted, or the base-runner be touched with the ball in the hands of a fielder, before he retouch such base after such fair or foul hit ball was so caught; provided, that the base-runner shall not be out in such case, if, after the ball was legally caught as above, it be delivered to the bat by the pitcher before the fielder hold it on said base, or touch the base-runner out with it; but if the base-runner, in attempting to reach a base, detach it from its fastening before being touched or forced out, he shall be declared safe.

SEC. II.—If, when the batsman becomes a base-runner, the first base, or the first and second bases, or the first, second and third bases be occupied, any base-runner so occupying a base shall cease to be entitled to hold it, and may be put out at the next base in the same manner as in running to first base, or by being touched with the ball in the hands of a fielder at any time before any base-runner following him in the batting order be put out, unless the umpire should decide the hit of the batsman to be an infield fly.

SEC. 12.—If a fair-hit ball strike him before touching a fielder, and, in such case, no base shall be run unless necessitated by the batsman becoming a base-runner, but no run shall be scored or any other base-runner put out until the umpire puts the ball back into play.

SEC. 13.—If, when advancing bases, or forced to return to a base, while the ball is in play, he fail to touch the intervening base or bases, if any, in the regular or reverse order as the case may be, he may be put out by the ball being held by a fielder on any base he failed to touch, or by being touched by the ball in the hands of a fielder in the same manner as in running to

first base; provided, that the base-runner shall not be out in such case if the ball be delivered to the bat by the pitcher before the fielder hold it on such base or touch the base-runner with it.

SEC. 14.—If, when the umpire call "Play," after the suspension of a game, he fail to return to and touch the base he occupied when "Time" was called before touching the next base; provided, the base-runner shall not be out, in such case, if the ball be delivered to the bat by the pitcher, before the fielder hold it on said base or touch the base-runner with it.

OVERRUNNING FIRST BASE

SEC. 15.—The base-runner in running to first base may overrun said base after touching it in passing without incurring liability to be out for being off said base, provided he return at once and retouch the base, after which he may be put out as at any other base. If, after overrunning first base, he turn in the direction of or attempt to run to second base, before returning to first base, he shall forfeit such exemption from liability to be put out.

SEC. 16.—If, before two hands are out and while third base is occupied, the coacher stationed near that base shall run in the direction of home base on or near the base-line while a fielder is making or trying to make a play on a batted ball not caught on the fly, or on a thrown ball, and thereby draws a throw to home base, the base-runner entitled to third base shall be declared out by the umpire for the coacher's interference with and prevention of the legitimate play.

SEC. 17.—If one or more members of the team at bat stand or collect at or around a base for which a base-runner is trying, thereby confusing the fielding side and adding to the difficulty of making such play, the base-runner shall be declared out for the interference of his team-mate or team-mates.

SEC. 18.—If he touch home base before a base-runner preceding him in the batting order, if there be such preceding base-runner, lose his right to third base.

WHEN UMPIRE SHALL DECLARE AN OUT

Rule 57

The umpire shall declare the batsman or base-runner out, without waiting for an appeal for such decision, in all cases where such player be put out in accordance with any of these rules, except Sections 13 and 15 of Rule 56.

COACHING RULES

Rule 58

The coacher shall be restricted to coaching the base-runner, and then only in words of assistance and direction in running bases. He shall not, by words or signs, incite or try to incite the spectators to demonstrations, and shall not use language which will in any manner refer to or reflect upon a player of the opposite club, the umpire or the spectators. Not more than two coaches, who must be players in the uniform of the team at bat, shall be allowed to occupy the space between the players' and the coaches' lines, one near first and the other near third base, to coach base-runners. If there be more than the legal number of coaches or this rule be violated in any respect, the captain of the opposite side may call the attention of the umpire to the offense, and thereupon the umpire must order the illegal coacher or coaches to the bench, and if his order be not obeyed within one minute, the umpire shall assess a fine of \$5.00 against each offending player, and upon a repetition of the offense, the offending player or players shall be debarred from further participation in the game, and shall leave the playing-field forthwith.

THE SCORING OF RUNS

Rule 59

One run shall be scored every time a base-runner, after having legally touched the first three bases, shall legally touch the home base before three men are put out; provided, however, that if he

reach home on or during a play in which the third man be forced out or be put out before reaching first base, a run shall not count. A force-out can be made only when a base-runner legally loses the right to the base he occupies and is thereby obliged to advance as the result of a fair-hit ball not caught on the fly.

UMPIRE AND HIS DUTIES

POWER TO ENFORCE DECISIONS

Rule 60

The umpire is the representative of the League and as such is authorized and required to enforce each section of this code. He shall have the power to order a player, captain or manager to do or omit to do any act which in his judgment is necessary to give force and effect to one or all of these rules, and to inflict penalties for violations of the rules as hereinafter prescribed.

Rule 61

There shall be no appeal from any decision of the umpire on the ground that he was not correct in his conclusion as to whether a batted ball was fair or foul, a base-runner safe or out, a pitched ball a strike or ball, or on any other play involving accuracy of judgment, and no decision rendered by him shall be reversed, except that he be convinced that it is in violation of one of these rules. The captain shall alone have the right to protest against a decision and seek its reversal on a claim that it is in conflict with a section of these rules.

MUST NOT QUESTION DECISIONS

Rule 62

Under no circumstances shall a captain or player dispute the accuracy of the umpire's judgment and decision on a play.

CLUBS CAN NOT CHANGE UMPIRE

Rule 63

The umpire can not be changed during a championship game by the consent of the contesting clubs unless the official in charge of the field be incapacitated from service by injury or illness.

PENALTIES FOR VIOLATIONS OF THE RULES

Rule 64

In all cases of violation of these rules, by either a player or manager, the penalty for the first offense shall be a fine by the umpire of \$5.00, and, for a second offense, prompt removal of the offender from the game or grounds, followed by a period of such suspension from actual service in the club as the president of the League may fix.

UMPIRE TO REPORT VIOLATIONS OF THE RULES

Rule 65

The umpire shall, within twelve hours after fining or removing a player from the game, forward to the president a report of the penalty inflicted and the cause therefor.

Rule 66

Immediately upon being informed by the umpire that a fine has been imposed upon any manager, captain or player, the president shall notify the person so fined and also the club of which he is a member; and, in the event of the failure of the person so fined to pay to the secretary of the League the amount of said fine within five days after notice, he shall be debarred from participating in any championship game or from sitting on a players' bench during the progress of a championship game until such fine be paid.

Rule 67

When the offense of the player debarred from the game be of a flagrant nature, such as the use of obscene language or an assault upon a player or umpire, the umpire shall within four hours thereafter forward to the president of the League full particulars.

WARNING TO CAPTAINS

Rule 68

The umpire shall notify both captains before the game, and in the presence of each other, that all the playing rules will be strictly and impartially enforced, and warn them that failure on their part to cooperate in such enforcement will result in offenders being fined, and, if necessary to preserve discipline, debarred from the game.

ON GROUND RULES

Rule 69

Before the commencement of a game the umpire shall see that the rules governing all the materials of the game are strictly observed. He shall ask the captain of the home club whether there are any special ground rules, and if there be he shall acquaint himself with them, advise the captain of the visiting team of their scope and see that each is duly enforced, provided that it does not conflict with any of these rules.

OFFICIAL ANNOUNCEMENTS

Rule 70

The umpire shall call "Play" at the hour appointed for the beginning of a game, announce "Time" at its legal interruption and declare "Game" at its legal termination.

SUSPENSION OF PLAY

Rule 71

The umpire shall suspend play for the following causes:

1. If rain fall so heavily as to cause the spectators on the open field and open stands to seek shelter, in which case he shall note the time of suspension, and should rain fall continuously for thirty minutes thereafter he shall terminate the game.
2. In case of an accident which incapacitates him or a player

from service in the field, or in order to remove from the grounds any player or spectator who has violated the rules, or in case of fire, panic or other extraordinary circumstances.

CALL OF TIME

Rule 72

In suspending play from any legal cause the umpire shall call "Time"; when he calls "Time," play shall be suspended until he calls "Play" again, and during the interim no player shall be put out, base be run or run be scored. "Time" shall not be called by the umpire until the ball be held by the pitcher while standing in his position.

DECISIONS ON BALLS AND STRIKES

Rule 73

The umpire shall call and count as a "ball" any unfair ball delivered by the pitcher to the batsman. He shall also call and count as a "strike" any fairly delivered ball which passes over any portion of the home base, and within the batsman's legal range as defined in Rule 31, whether struck at or not by the batsman; or a foul tip which is caught by the catcher standing within the lines of his position, within 10 feet of the home base; or which, after being struck at and not hit, strike the person of the batsman; or when the ball be bunted foul by the batsman; or any foul-hit ball not caught on the fly unless the batsman has two strikes; provided, however, that a pitched ball shall not be called or counted a "ball" or "strike" by the umpire until it has passed the home plate.

Rule 74

If but one umpire be assigned, his duties and jurisdiction shall extend to all points, and he shall be permitted to take his stand in any part of the field that in his opinion will best enable him to discharge his duties. If two umpires be assigned to a game, the assistant umpire shall decide all plays at first and second bases.

FIELD RULES

Rule 75

No person shall be allowed upon any part of the field during the progress of a game except the players in uniform, the manager of each side, the umpire, such officers of the law as may be present in uniform, and such watchmen of the home club as may be necessary to preserve the peace.

Rule 76

No manager, captain or player shall address the spectators during a game except in reply to a request for information about the progress or state of the game.

Rule 77

Every club shall furnish sufficient police force to preserve order upon its own grounds, and in the event of a crowd entering the field during the progress of a game, and interfering with the play in any manner, the visiting club may refuse to play until the field be cleared. If the field be not cleared within 15 minutes thereafter, the visiting club may claim and shall be entitled to the game by a score of nine runs to none (no matter what number of innings has been played).

GENERAL DEFINITIONS

Rule 78

"Play" is the order of the umpire to begin the game or to resume it after its suspension.

Rule 79

"Time" is the order of the umpire to suspend play. Such suspension must not extend beyond the day.

Rule 80

"Game" is the announcement of the umpire that the game is terminated.

Rule 81

"An Inning" is the term at bat of the nine players representing a club in a game and is completed when three of such players have been legally put out.

Rule 82

"A Time at Bat" is the term at bat of a batsman. It begins when he takes his position, and continues until he is put out or becomes a base-runner. But a time at bat shall not be charged against a batsman who is awarded first base by the umpire for being hit by a pitched ball or for the illegal delivery of the pitcher or on called balls or when he makes a sacrifice hit.

Rule 83

"Legal" or "Legally" signifies as required by these rules.

THE SCORING RULES

Rule 84

To promote uniformity in scoring championship games the following instructions are given and suggestions and definitions made for the guidance of scorers, and they are required to make all scores in accordance therewith.

THE BATSMAN'S RECORD

Rule 85

SECTION 1.—The first item in the tabulated score, after the player's name and position, shall be the number of times he has been at bat during the game, but the exceptions made in Rule 82 must not be included.

SEC. 2.—In the second column shall be set down the runs, if any, made by each player.

SEC. 3.—In the third column shall be placed the first-base hits, if any, made by each player.

THE SCORING OF BASE HITS

SEC. 4.—A base hit shall be scored in the following cases:

When the ball from the bat strikes the ground on or within the foul lines and out of reach of the fielders.

When a fair-hit ball is partially or wholly stopped by a fielder in motion, but such player can not recover himself in time to field the ball to first before the striker reaches that base or to force out another base-runner.

When the ball be hit with such force to an infielder or pitcher that he can not handle it in time to put out the batsman or force out a base-runner. In a case of doubt over this class of hits, a base hit should be scored and the fielder exempted from the charge of an error.

When the ball is hit so slowly toward a fielder that he cannot handle it in time to put out the batsman or force out a base-runner.

In all cases where a base-runner is retired by being hit by a batted ball, the batsman should be credited with a base hit.

When a batted ball hits the person or clothing of the umpire, as defined in Rule 54, Section 2.

In no case shall a base hit be scored when a base-runner is forced out by the play.

SACRIFICE HITS

SEC. 5.—In the fourth column shall be placed the sacrifice hits.

A sacrifice hit shall be credited to the batsman who, when no one is out or when but one man is out, advances a runner a base by a bunt-hit, which results in the batsman being put out before reaching first, or would so result if it were handled without error.

FIELDING RECORDS

SEC. 6.—The number of opponents, if any, put out by each player shall be set down in the fifth column. Where the batsman is given out by the umpire for a foul strike, or fails to bat in proper order, the put-out shall be scored by the catcher. In case of the base-runner being declared "out" for interference, running

out of line, or on an infield fly, the "out" should be credited to the player who would have made the play but for the action of the base-runner or the announcement of the umpire.

SEC. 7.—The number of times, if any, each player assists in putting out an opponent shall be set down in the sixth column. An assist should be given to each player who handles the ball in aiding in a run-out or any other play of the kind, except the one who completes it.

An assist should be given to a player who makes a play in time to put a runner out, even if the player who could complete the play fail, through no fault of the assisting player.

And generally an assist should be given to each player who handles or assists in any manner in handling the ball from the time it leaves the bat until it reaches the player who makes the put-out, or in case of a thrown ball, to each player who throws or handles it cleanly, and in such a way that a put-out results, or would result if no error were made by a team-mate.

Assists should be credited to every player who handles the ball in the play which results in a base-runner being called "out" for interference or for running out of line.

ERRORS

SEC. 8.—An error shall be given in the seventh column for each misplay which prolongs the time at bat of the batsman or allows a base-runner to make one or more bases when perfect play would have insured his being put out. But a wild pitch, a base on balls, a base awarded to a batsman by being struck by a pitched ball, an illegal pitch, a balk and a passed ball, each of which is a battery and not a fielding error, shall not be included in the seventh column.

An error shall not be charged against the catcher for a wild throw in an attempt to prevent a stolen base, unless the base-runner advance an extra base because of the error.

An error shall not be scored against the catcher or an infielder who attempts to complete a double play, unless the throw be so wild that an additional base be gained.

In case a base-runner advance a base through the failure of a

baseman to stop or try to stop a ball accurately thrown to his base, he shall be charged with an error and not the player who made such throw, provided there were occasion for it. If such throw be made to second base the scorer shall determine whether the second baseman or shortstop shall be charged with an error.

STOLEN BASES

SEC. 9.—A stolen base shall be credited to the base-runner whenever he advances a base unaided by a base hit, a put-out, a fielding or a battery error.

Rule 86

The Summary shall contain:

SECTION 1.—The score made in each inning of the game and the total runs of each side in the game.

SEC. 2.—The number of stolen bases, if any, by each player.

SEC. 3.—The number of two-base hits, if any, made by each player.

SEC. 4.—The number of three-base hits, if any, made by each player.

SEC. 5.—The number of home runs, if any, made by each player.

SEC. 6.—The number of double and triple plays, if any, made by each side, and the names of the players assisting in the same.

SEC. 7.—The number of innings each pitcher pitched in.

SEC. 8.—The number of base hits, if any, made off each pitcher.

SEC. 9.—The number of times, if any, the pitcher strikes out the opposing batsmen.

SEC. 10.—The number of times, if any, the pitcher gives bases on balls.

SEC. 11.—The number of wild pitches, if any, charged to the pitcher.

SEC. 12.—The number of times, if any, the pitcher hits a batsman with a pitched ball.

SEC. 13.—The number of passed balls by each catcher.

SEC. 14.—The time of the game.

SEC. 15.—The name of the umpire.

TRACK AND FIELD ATHLETICS.

EDITED BY W. A. SCHICK, JR., HARVARD, '05.

INTRODUCTION

THE schoolboy who goes in for track or field athletics should bear in mind at the outset that his future value as an athlete depends very largely on whether or not he overdoes things in the early years of training. Many a promising sprinter, runner or jumper has been spoiled in the making; many a boy whose performances on the school track or turf promised great things for his college has fizzled out completely just when he should have attained his greatest power. More often than not it is the athletic trainer who is to blame. Trainers—not all, by any means, but a large proportion of them—allow their ambitions to turn out winning teams to get the better of their common sense. Schoolboys are capable of a good deal of hard work, but they are not capable of the amount of work that a college man is. Trainers are prone to lose sight of this. A boy that is driven too hard will nine times out of ten completely lose nervous force, and nervous force is the prime factor of athletic success. The age at which a boy may safely begin hard training varies in different cases. Ordinarily a boy under sixteen should

do very little work if he hopes to attain success in college. Even at sixteen hard work is harmful unless the muscles and nervous energy have been developed by ordinary light exercise.

SPECIALIZATION TO BE AVOIDED.—Besides driving their charges too hard many trainers deny them a thorough development of their powers by allowing them to indulge in the form of athletics which they like best to the exclusion of all others. The result is that they are but partially developed physically, a fact which may not trouble them for a while, but which in later life will handicap them greatly. The rightful purpose of physical training in schools is to turn out strong, healthy boys with all-round developments, and not specialists. After a boy has reached his growth and come into the full endowment of power it is time enough for him to put general training aside and go in for some one special form of athletics.

A remarkable example of the all-around athlete was Alvin C. Kraenzlein, of the University of Pennsylvania. At twenty-three years of age he had no equal in the world for excellence in various branches of athletics. He was the best broad jumper in the world (24 feet 4½ inches), the best hurdler at all distances, an excellent 100-yards sprinter, and a wonderful performer with the hammer, shot and discus. He was also proficient at high jumping and pole-vaulting.

This does not mean that a schoolboy should not select sprinting or long-distance running or some

other specialty and strive to excel at it, but that he should not do so to the detriment of his general all-round physical development. And because trainers are liable to err in this matter it becomes necessary for the boy himself to be on his guard and to a certain extent become his own trainer. The boy who goes in for athletics should try to bring himself forward gradually so that the zenith of his athletic powers will be reached not in the last year at school but rather in the second or third year at college. And even if he does not intend to enter college his course should be the same, for a boy whose nervous force has been sapped from him by the time he leaves school is in poor condition to enter a career of any sort.

DIET.—It is not possible to lay down hard and fast rules in the matter of diet for track or field athletes. For various reasons—one of which is the variety of material going to make up a track team—a strict diet is neither feasible nor advisable. In every team there will be fellows on whom a radical change in diet will work harm rather than good. It is well to have the team at a training-table, but ordinarily four weeks prior to the big meet will be time enough to start them there. The things for the trainer to guard against are fast eating and overeating rather than any special food, although, of course, dishes such as pies and heavy pastry which are likely to produce biliousness should be left out of the *menu*. Regularity and good cooking are essential, as are plenty of sleep, fresh air and lots of

pure water. With these there should be an atmosphere of cheerfulness.

WHAT TO WEAR.—The costume for the sprinter, runner or hurdler should consist of a light-weight shirt—mercerized cotton is very satisfactory—without sleeves, trunks of china silk, sateen, cambric or silesia that reach to just above the knees and are sufficiently full everywhere to make binding impossible, and shoes of soft calf or kangaroo leather, with the usual six spikes in the toes. In the case of the hurdler two additional spikes set near the sides of a low heel are necessary. For practise a pair of light cotton socks should be worn to render the shoes more snug and keep them from chafing the feet. In competition a pair of cham-ois-leather pushers take the place of the socks. Grips should be made of soft cork, and if elastics are attached to slip over the backs of the hands their usefulness is enhanced.

TRACK ATHLETICS

I. Sprinting

The sprinter and the long-distance runner are as widely apart in make-up as the pole-vaulter and the shot-putter. A sprinter must have at the outset a strong heart, quick, supple muscles and lots of will. Agility of body and high nervous force make the successful sprinter. The long-distance runner requires different qualities.

The ideal sprinter need be neither long nor short; he may be either, so long as he develops his stride to suit. But he has a broad back, strong abdominal muscles and long legs with the muscles small rather than large and very quick. Between B. J. Wefers and A. F. Duffy there is a difference of eight inches in height and forty-five pounds in weight, Wefers standing 6 feet 1 inch and weighing 185 pounds, and Duffy being 5 feet 5 inches high and weighing 140 pounds.

Training for the sprints—and by this is meant the indoor events, the 40-yards dash and the 300-yards run, as well as the outdoor 100- and 220-yards dashes—requires long, hard and patient work as compared with training for the distances, although having once learned how and reached condition the work is far easier than

in the latter. From the 40 yards to the 300 the requirements are the same and the training is so nearly similar that it is not necessary to give separate instructions for each. In all of these events it is the start that counts, and consequently it is not possible for a sprinter to become too proficient at it.

Prior to 1890 all sprinters stood erect upon their marks with one arm extended. At the sound of the pistol that arm was brought sharply down and the sprinter leaped forward. The start was not greatly different from that used for distance running. Nowadays every sprinter uses the college start (also variously known as the "kangaroo," "all-fours," and "crouching" start) or some variation of it.

THE CROUCHING START.—This method of starting was discovered by accident in 1890 by Lee, at that time a crack sprinter of the New York Athletic Club and later champion of the world. One morning Lee and a number of other sprinters were limbering up at Travers Island. Lee got away so much quicker than the others that the short dashes all resulted in his favor. Finally, merely as a joke, he offered to handicap himself, and got down on his hands and knees, then on knees and toes, and finally hit upon the position as used to-day. The start proved to be anything but a handicap and Lee gained several yards every time he used it.

After a week spent in perfecting it Lee tried it in public. He lost his race and his companions jeered at what they called his "fool dog start." About a month

later, on June 28, 1890, the "fool dog start" had its vindication, Lee beating Fred Westing for the Eastern Championship in a 220-yard dash at Staten Island. Westing at that time was champion of America, Canada and England and practically champion of the world, and was noted far and wide for the quickness of his starts. On this occasion, however, the "fool dog start" got its inventor away fully two yards to the good and Westing was defeated in a close finish. Two years later Lee's start was accepted by experts in this country and Canada as being the fastest known, and in England a few professionals tried it. It was not, however, until 1895, when the team of the London Athletic Club visited this country, that British amateurs recognized the value of the start and adopted it. Lee himself explained the value of it as follows:

"The beauty of this start is that there can be no false motion, no backward step when the pistol cracks. You dig your holes for your feet, and place your fingers on the mark and lean all your weight upon them, with your upper body out over the mark. The instant you lift your fingers from the mark you begin to fall forward, and you must run, and run hard, or you will fall on your face. That it is the natural and proper way to start its universal use proves."

How to START.—The college start should be used for all distances from thirty to three hundred yards. The left foot is placed about six inches back of the mark, the other foot about two feet back of that. Get

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a firm hold for each foot by digging deep depressions in the track. The arms should be straight and the finger-tips should rest on the mark with the thumbs in line with the toes of the forward foot. Some sprinters put their knuckles to the ground, but the fingers supply more spring. If the running corks are supplied with elastics to slip over the backs of the hands it will not be necessary to keep hold of them. While waiting for the command to get set let yourself down comfortably on the knee of the rear leg.

At the word "Set!" the runner throws his weight forward as far as he can without toppling over, keeping his head back so that he has a clear view of the track. The weight of the body should now be shared about equally by the front leg and the hands. In this position a strong steady balance can be maintained for some time. At the sound of the pistol the hands are raised, the rear foot pushes off with all possible force and the weight of the body is thrown suddenly on to the front leg. The runner is now falling forward, and if he makes no further effort will land prone on his face. But the back leg is brought quickly to the front and the runner takes two or three strides in a crouching position, gradually bringing himself erect as he recovers his equilibrium. Any attempt to straighten up at once will undo the work. Dive forward and put every effort into the first five or six strides in order to get into pace as soon as possible. Much depends upon this; a quick start is good, but it is possible for a runner to lose what advan-

tage he has gained from the start by neglecting to summon every muscle to his aid in the first few strides. Endeavor to run straight, putting one foot directly in front of the other as far as possible. The feet should meet the ground pointing straight forward and not at an angle, as in walking. The arms should be left to take care of themselves, as they will at once adjust themselves to the motion of the body. The start is more than half the battle and should be practised frequently, taking care, however, not to overdo it. Too many starts, especially at the commencement of practise, will render the muscles of the legs sore and stiff, and the runner will find that instead of increasing his speed he has lessened it. Early in the season four or five starts a day will in most cases prove as much as the runner can stand. He should get off his mark at the report of a pistol and go fifteen yards or so at his best speed, being careful always to work in good form.

THE PACE.—Five or six strides should bring the runner into his pace, body erect save for a slight forward inclination and chin held well in. The arms will look after themselves until the pace is found, and as a general thing after that. But occasionally it is necessary to correct a disposition on their part to swing back of the body. This serves in a measure to retard the speed. The arms should swing from the elbows rather than from the shoulders and always in advance of the body rather than alongside.

THE STRIDE.—Every runner must find his own

stride; what it is to be depends on the length of leg. To a certain extent the runner with long legs has an advantage over the one with short legs, yet the latter by a rapid succession of shorter strides can often equalize matters, since a long stride must of necessity be slower. Don't strain after a long stride. If you can accomplish it naturally well and good; if you can not, use the stride nature intended you should. Form is what counts in sprinting, and a short stride may be in just as good form as a long one.

Be sure to land on the front of the foot, that is, the toes and the ball, and not on the toes alone. The foot should come down very nearly flat to the track, but the heel should not touch. Never kick your heels up behind, as by so doing you cause loss of locomotion and speed by making the legs trail through a greater space than is necessary. Care should be taken to come down upon the ground lightly at every step. This is something that may be easily learned in practise and is far more important than it sounds, since much jarring soon tires the muscles and nerves.

TRAINING.—As has been said, the training necessary for the four events which are grouped under the general title of sprints, i. e., the 40-yards, the 100-yards, the 220-yards and the 300-yards dashes, is much the same; yet there must of necessity be some difference between preparing for a 40-yards dash indoors and a 220-yards dash on the cinders. Whatever the event or events to be trained for the runner should not undertake serious

work until by preliminary training of a general sort he has hardened and quickened his muscles and brought his body as a whole to a condition where moderately hard work will not exhaust it. The 40-yards dash is just a dash and no more, a wild scramble of some twenty odd strides consuming from start to finish but four and a half or five seconds. In short, it is a prolonged start, and in it more than in any other event the start is the principal thing. In training for it it is best to run the entire distance at every attempt, using every effort to start quickly and get the pace not later than the fourth stride. After that there is no possibility for the slightest let up; in point of fact, the 40-yards man should increase his speed all the way to the tape and finish at the best speed he is capable of.

THE 100-YARDS MAN should begin his active training by practising three or four starts and then going on for about 50 yards at three-quarters speed. Increase the severity of the work very gradually and stop the moment fatigue comes. After a few days make a point of running the entire 100 yards at three-quarters speed, but only do that distance at full speed once a week. The three days preceding the contest should be days of rest. On the first two take some slow work in order to keep the muscles in good condition and on the last lay off entirely.

All this applies to the 220 yards in a general way, though of course the runner must accustom himself to longer trials in this case. For ordinary work from 150

to 175 yards is a good distance to cover, reserving the full 220 for a special once-a-week effort. The 300-yards man should substitute 200 yards for every-day trials. It is an excellent general rule that a runner should not run a trial for more than two-thirds of his distance save once a week. Never start a race without first warming up thoroughly and never slow up suddenly afterward. A sprained tendon or a torn muscle may result in either case. *This is important.*

WHEN RUNNING never look behind and never allow the actions of the other competitors to worry you. Pay no heed to them, but give all thought and effort to your race. Breathe naturally—that is, through the mouth. When you near the finish-line don't let up in your speed no matter how sure of the race you may feel. Try to keep the body well forward at the finish. There is always a tendency to draw back the head and shoulders when tired, which greatly retards the speed. Finish hard. It is better to throw the chest forward and allow the arms to swing naturally than to throw the latter into the air. Slow down by degrees.

II. Middle-distance Running

The middle distances include the quarter-mile run (440-yards dash), the 600-yards run (an indoor event), the half-mile run (880-yards dash) and the 1,000-yards run (an indoor event). In each of these speed must be reenforced by endurance. The quarter-mile as run

nowadays usually consists of a first 100 yards at a speed as near ten seconds as possible followed by 340 yards in something about forty seconds. In other words, it is necessary to do the first hundred yards at top speed and then have staying power sufficient to enable you to keep up a speed very little short of that to the end. This is true also of the 600 yards. In the half-mile event endurance comes to the fore and speed—such speed, at least, as we associate with the sprinter—is of secondary consideration. The 1,000-yards run, since it is an indoor event and performed on a short track with raised turns, is naturally a comparatively slow performance.

PRELIMINARY WORK.—The candidate for any of the middle distances should begin his work as soon as the snow is off the ground in the spring. Daily walks and jogs covering from two to three miles across country should be followed by baths and brisk rub-downs. From a fortnight to a month of this preparation should put the runner in hard physical condition and give him a very considerable lung power.

THE QUARTER-MILE.—As soon as it is possible to get on to the track begin by running two 220-yard distances at three-quarters speed, resting between. On the following day do a moderate mile. In a similar way alternate long and short distances for the next six weeks, doing a fast 100 yards now and then to develop sprinting ability and not oftener than once in two weeks going the quarter-mile at top speed. Two or three times a week the crouching start should be practised.

The first part of a quarter-mile race is usually a short dash to secure the pole, which is a decided advantage, and consequently much may depend upon the runner's ability to get off his mark quickly.

This should bring you to about the first week in May, when speed trials may become more frequent and when it will be well to pay more attention to sprinting. It is very important that you should be able to tell accurately how fast you are running. This is a difficult trick to learn, but by having some one hold a watch on you two or three times a week for various distances, such as the 100, 150, and 300 yards, you will soon be able to judge your pace very accurately. As in the sprints, no work other than mere muscular exercise should be performed during the three days preceding the contest and no speed trial should be held later than a week before the meet.

The pace is the same as for the sprints. The form too is identical save that possibly the body should be kept more nearly erect.

The quarter-mile affords little opportunity for strategy and the best rule is, *Get the lead and hold it*. After that keep well within yourself in order to finish as strong as possible. As in the sprints, don't worry about the others, but keep your eyes ahead and your mind on the contest.

THE HALF-MILE.—There is not much to say of the half-mile that has not been said of the quarter. The early spring work should be the same, while the track

preparation may be conducted on the same general lines; alternate long and short runs, an occasional sprint to develop the ability to spurt when necessary—observing care here lest sprained muscles result—and a fortnightly speed trial over the full distance. The half-miler is even more dependent for success on his ability to judge his pace than is the quarter-miler, and this ability should be one of the first things gained. The start for the half-mile is usually the standing-start, though of course there is no reason why the college start should not be used if desired. At least the half-miler should know how to start from the crouching position quickly since it will sometimes happen that his success will depend to some extent on his being able to get the pole at the beginning of the race.

GENERALSHIP.—The half-mile, like the mile and two-mile runs, and unlike the sprints and the quarter, affords an excellent chance for generalship, individual and team. A runner who is trained to run the first half of the distance at high speed in the hope of being able to distance the field and then by sheer dogged endurance hold his place will often fall victim to the runner who is trained to let some one else set the pace and then show a wonderful burst of speed on the last half lap. When there are two or more entries from the same team the race should be planned beforehand. Things don't always happen just as they are supposed to, but in almost every case a little planning will help, while more often than not it will save the day. Study

your opponent's work and study the performances of the best men at your distance. And stick to your distance; if you are a half-miler do not in competition try for the quarter or the mile. There is glory enough in being a good half-miler and unless you are much above the ordinary that will give you all the work you can stand.

III. Long-distance Running

Long-distance running is the antithesis of sprinting. In the sprint speed is everything; in the mile and two-mile runs endurance is the first requirement.

TRAINING should begin early in the winter with calisthenics in the gymnasium to strengthen the back and abdominal muscles. As soon as the runner can get outdoors he should start to work strengthening the heart and lungs by jogging slowly over a half mile the first day, a mile the second and then, if he does not find himself fatigued, going the next day two, three or four miles at an easy pace. Perseverance is what counts, and that and a cheerful willingness to work will win out in the end, for long-distance running is one of the things one does not have to be born to; with health, patience and perseverance any boy may develop himself into a creditable miler.

A long, comfortable stride should be sought for. This does not mean that you are to exhaust yourself day after day trying to attain a length of stride which your build naturally prohibits; only that you should

seek to lengthen your stride by just that little which is probably within your power to attain and which may mean a good deal in the contest.

Do not get it into your head that because you are training for the distances you are not required to do any fast work. Mr. Malcolm Ford has laid down the following schedule for a man who is training for the mile run:

“Monday, three-quarters of a mile.

“Tuesday, a fairly fast 600 yards, followed by a few sprints of 50 or 100 yards.

“Wednesday, a steady one mile.

“Thursday, one-half mile at an easy pace.

“Saturday, some sprinting ranging up to 440 yards.”

It may be seen from this that the distance man should practise sprinting in order that he may be able to show a burst of speed at the finish if necessary.

It is well for the runner to train slightly over his distance; if he can do a mile and a half in practise so much the better, even if he is to do only the mile in competition. Endurance is the thing to work for, and endurance means strength of heart and lungs and muscles. By running over his distance the miler or two-miler will not only strengthen these but will also learn to regulate his breathing—a difficult feat at first—and accumulate sufficient energy in reserve to enable him to increase his speed in the last 100 yards of the race.

It is possible, however, to overdo this and to weaken rather than strengthen the heart and to wear down the system by doing excessive distances in training. Running over your distance does not mean doubling or tripling it.

THE MILER AND TWO-MILER, like the half-miler, should know how fast he can run the quarter, half, three-quarters and distance. He *must* be a good judge of pace. In a contest he should hold himself down to his speed no matter what efforts his competitors may make to draw him out. He should run on his own time and pay no heed to what the others are doing. On the last quarter he should resist all temptation to shorten his stride and run out of form. The temptation to do so will be strong to the inexperienced runner; he is becoming tired, the field is going by him and the main thing seems to him to be to hurry up at any cost. But don't do it. Keep your form every minute and don't clip your stride. If you have been running over your distance in practise perhaps you will be able in the last hundred yards to alter your gait to the quarter-miler's and finish in a hard sprint.

Be wary always of overwork while training; one day's overexertion will often counteract a whole week's progress.

IV. Hurdling

The hurdling events are as follows:

High Hurdles—120 yards; 10 hurdles 3 feet 6 inches high placed 10 yards apart with 15 yards clear at start and finish.

Low Hurdles—220 yards; 10 hurdles 2 feet 6 inches high placed 20 yards apart with 20 yards clear at start and finish.

Indoor Hurdles—45 yards; 4 hurdles 2 feet 6 inches high placed 10 yards apart.

The boy who goes in for the hurdles must be willing to work hard and progress slowly. It has been said that sprinters are born and not made. If true of sprinters it is doubly so of hurdlers. The hurdler requires all the attributes belonging to the sprinter, and others beside. He must be strong, exceptionally supple and must possess skill, nerve, dash and a cool head. To excel in his line he must devote several years of hard and patient practise to it. This may sound discouraging, and to offset it the reader is reminded that the hurdler who succeeds accomplishes as much as it is possible to accomplish by devoting oneself to a single form of athletics, and gains an all-round physical development which few other forms supply.

PRELIMINARY TRAINING.—The hurdler's education begins in the gymnasium with calisthenics to develop the muscles of the body, and more especially those below the waist. Rising alternately on toes and heels

and doing the double jump on the former are exercises which should be practised daily. Raising the legs alternately until the knees are level with the armpits; throwing one leg, bent at the knee, forward and up and the other, bent at the knee, backward and up; and moving the body from the waist upward from left to right and from right to left without moving the feet are exercises especially beneficial to the hurdler. An easy jog on the running track or out of doors when the weather permits should be indulged in at least every other day during the preliminary training.

OUTDOOR WORK.—As soon as the ground is in condition for outdoor work get on to the cinders every day for a week. Begin by jogging and follow that up with spirited sprints for short distances, lifting the knees high and looking carefully after form, which should be that of the 100-yard sprinter. Practise the college start until you can get away sharply with the crack of the pistol.

Whether you are going in for the high hurdles or the low hurdles you must display no hesitation, but take the rails at a dash. Therefore one of the very first things to do is to overcome all nervousness. To do this put up one hurdle at its proper distance from the mark and practise taking it three or four times daily until all hesitation is gone. Always start with a pistol. When you are able to go over the first hurdle without any let-up at the take-off put up two more and try those until the pace between hurdles is fairly well

mastered. Don't be in a hurry to negotiate the entire flight and don't go over the hurdles more than four times in a day; if four times is too much for your strength cut it down to three or two. Four days of hurdling and two of starting and sprinting should compose the week. After you have advanced to the point where you can take the full flight at a moderate pace be careful not to overdo things, and lay off from all work at the first indication of staleness. Take the full flight at top speed not more than once a week, no matter how strong you may feel nor how proficient you think yourself. And do not go near the hurdles for three days before a contest.

Aside from the hurdle work the training for the hurdler is similar to that of the sprinter. Sprints of from 40 to 130 yards on the flat if training for the high hurdles, or from 80 to 230 yards if training for the low, starts, occasional one- or two-mile walks across country on days when there is no track work to strengthen the heart and lungs are all necessary. Extremely long walks should, however, be avoided, as they tend to bind the leg and thigh muscles.

AT THE HURDLES.—In the high hurdles the first hurdle is 15 yards from the mark. The hurdler should use the crouching or college start, get away with the pistol and find his pace by the time the fourth stride has been taken. How long his take-off is to be is of course governed by his length of leg. Usually the first hurdle is taken from about 6 feet 6 inches distant.

There must be no lessening of the pace; the hurdler should go at the jump with speed and dash. Most hurdlers take off from the right foot.

Remember that it is better to top the bar than to go too high; every unnecessary inch above the hurdle is an inch wasted. On the take-off the body should be well doubled as the first leg clears the bar. If the right leg goes over first the right arm should be thrown smartly forward; the left arm is then brought quickly forward as the other leg goes over; on landing the hurdler is in a natural position to take up the running again. Speed between hurdles is everything. The distance between the high hurdles is 30 feet. In taking the first hurdle the hurdler will consume about 6 feet of that distance. His take-off for the next hurdle should be 6 feet 6 inches away from it. There remains therefore 17 feet to be covered by running. This distance must be taken, if possible, in three strides. The hurdler who has to use four will find himself taking off for the first hurdle on one foot and for the second on the other, and so on for the entire flight, and unless he is as clever on one as on the other he is at a great disadvantage with the man who uses but three strides and takes off from the same foot each time.

Care should be taken in landing from the jump to come down not on the toes alone but on the *ball* and toes. The necessary spring is then obtained by throwing the weight from the ball to the toes. When the first foot touches the ground the other should be in

position to swing forward for a first stride of moderate length.

BETWEEN HURDLES.—Practise alone will determine how best to divide the territory between jumps. If the first stride is about 5 feet 4 inches, the second about 7 feet and the third about 4 feet 8 inches, the hurdler will usually reach the next take-off in good shape for the jump. He should guard against making the first stride too long. There is always a strong temptation to do this with the idea of covering the distance. But the first must be comparatively short and taken with the next two in mind. It is by the first stride that impetus for the others is obtained. A stride of about 5 feet 4 inches will bring the hurdler to the next step with plenty of rush to carry him easily the 7 feet. On the third stride the effort should be toward shortening the length without lessening the speed, as a certain amount of impetus must be retained for the take-off of the jump.

There are two highly important things to bear in mind. When taking the hurdle the body should face it squarely. The body acts as a lever, and unless it is straight when jumping the legs can not be brought entirely around, but instead each jump will leave the hurdler in a position oblique to his course. When landing thrust the head sharply forward and hold it so; do not allow it to fall backward. This is especially necessary after the final hurdle, as it is a great assistance in the sprint for the finish.

The word jump has been used throughout this article merely for want of a better one to describe the motion used in surmounting the hurdles. As a matter of fact the motion is not a jump in the general sense of the word. The effort is and always should be to "cut" over the hurdle without any perceptible glide through the air. This is especially so of the low hurdles.

THE LOW HURDLES.—In these the bars are 2 feet 6 inches from the ground and should be taken in the stride without any special spring into the air and with as little lateral movement of the legs as possible. The motion used should in reality be a heightened stride in which the first foot is thrown a few inches higher than in the stride on the flat. The less it resembles a glide the less time it wastes. It is not an easy performance to attain to; it means the hardest and most faithful practise; but when once perfected it is well worth the trouble it has cost.

The low hurdles are 60 feet apart. Seven or nine strides should be taken; seven is the ideal number. Some hurdlers who are unable to cover the distance in seven strides use eight instead of nine, taking the jumps from alternate feet. This, however, is a difficult accomplishment and one best avoided by young hurdlers.

FIELD ATHLETICS

I. Pole-Vaulting

The pole-vaulter's work begins at the commencement of the winter. The muscles of the arms, shoulders and back must be developed before actual work with the pole is taken up. As soon as the weather permits out-of-door work should begin with sprinting practise, taking short distances at good speed.

There are two methods of obtaining the propulsion necessary to throw the body over the bar. One is to take a long run and rely upon the impetus so gained to put the body over and the other is to make the run much shorter and put all the force into the leap. Each method has its advocates and perhaps each is equally good. On the whole, however, the young pole-vaulter will probably obtain best results from steering a middle course and relying about equally on sprint and leap.

The first thing to do is to find out the starting-point and the take-off. Only experimenting will discover these spots for you. When found mark them plainly. Then place your pole against the bar, lower end on the ground where it will be in the vault and observe at what point on the pole the bar touches. Let the pole fall toward you and grasp it a foot under that point

with the hand which is to be lowest. If you take off with the left foot this hand will be the left one. Now grasp the pole with the upper hand—in this case the right one—from $2\frac{1}{2}$ to 3 feet farther toward the top. The thumbs should be held up.

ON THE MARK.—Standing on your starting-mark, face to the right and hold your pole in front of you. When you start bring the forward end up until it points, at a distance of 50 yards, to about the height of the bar. Fix your eyes on the handkerchief suspended from the middle of the bar and don't look at anything else until you have raised your body to it. You must learn to know where the take-off is without really seeing it, for it is fatal to success to let the gaze wander from the goal. Neither is it necessary to look where the pole is going; the end will find its place and the pole will take care of itself.

THE SPRINT.—A good deal depends on the sprint down the runway. It must be fast and the strides should be well opened out without, however, any of the "galloping" which beginners so often affect. When the take-off is reached the foremost end of the pole should be brought down sharply into the depression in front of the sill. At the same instant spring forward and up for the bar with all your might, using all the muscles of legs, back and arms. If your sprint has been hard and fast you will find yourself describing an arc whose chord is an angle of about 55 degrees. Your impetus will be sufficient to carry you over the bar.

unless you have made your sprint too slow or have eased up at the take-off. In the latter case your flight will either stop before you have reached the bar or lessen to such a degree that you will not be able to drop over without taking the bar with you. It is necessary therefore to get plenty of "rush" into the sprint.

THE VAULT.—As the body leaves the ground it must be controlled and guided by the arms and pole. The right or upper arm should be stretched taut, the legs thrown up and out and the body turned so that it faces the bar. As the bar is reached the arms must accept the weight of the entire body and lift it so that it is held at right angles to the pole, or a little better. The back is straightened and all efforts given to the task. Additional lifting power is found if at the moment of reaching the bar the lower hand is raised to a point on the pole just under the upper hand. The upper hand, however, must not be raised, as the rules prohibit it. The lifting process consists of pulling with the upper arm and pushing with the lower. This gives at the same time the peculiar twist to the body that drops it over the bar. At the moment the downward motion is begun a hard push against the pole gives the vaulter a further impetus past the bar. When the fall has fully begun the pole is abandoned. The twist which has swung the body during the vault continues after the fall begins and the descent is made with the back to the bar.

Only experience will teach you at what height to

grasp the pole for various heights of the bar. Much depends upon the power of the lift and of the impetus of the spring.

ATTIRE.—The pole-vaulter's costume should consist of a sleeveless shirt similar to that worn by runners, a pair of easy-fitting light-weight pants reaching to a point well above the knees and a pair of kangaroo leather shoes such as described for hurdlers, with both toe and heel spikes.

A satisfactory pole is that made of selected spruce. This pole costs from \$3 to \$6, according to length. A good length is 14 feet, although for the highest vaults a 16-foot length is necessary. A better pole is made of hollow spruce with the interior filled with a preparation which adds to the strength of the pole without increasing its weight. A pole of this sort costs \$9.50.

II. Broad Jumping

The broad jumper must first of all learn what form is. Every boy not a cripple can broad jump, but to jump well is something requiring study and practise, and much of the latter.

THE PRELIMINARY TRAINING must contain a good amount of sprinting practise, for on the speed attained at the take-off depends how great an effort of the body may be made. Sprints of from 50 to 100 yards are therefore a necessary part of the broad jumper's education. A deal of practise is necessary if you would

excel in this event, but at the same time care must be taken not to attempt too much at one time, for broad jumping quickly tires the leg muscles and a strained tendon may result from too sustained efforts. After the form has been acquired a half dozen jumps on alternate days is all that should be indulged in. In competition be careful to limber your muscles well by short jogs, sprints and easy jumps before beginning. On the first attempt try less for distance than for form and be certain that the take-off is reached perfectly.

THE MARKS.—The broad jumper must determine the location of his take-off and the place where he is to get into his stride before he can hope to do any successful jumping. The location of these marks can be determined only by experiment. Find your second mark, or mark nearest the take-off, first. This mark will ordinarily be either seven or nine strides from the take-off. If you reach your second mark squarely with the foot your jump from that foot should come just as squarely to the take-off. The second mark therefore is a means of finally regulating your pace. The first mark may be any desired number of paces from the second and is used for the same purpose. Theoretically the jumper comes into his stride at the first mark and perfects it at the second. No effort made in finding the take-off is wasted, for without a good take-off it is not possible to get the best results.

The start for the broad jump is the standing start used for distance running. The jumper should get

away from the starting-place without hesitation, but much speed is not advisable until the stride has been found. The highest speed should be reached about 4 yards from the take-off and at the moment when the body is to be gathered for the jump. Unless the speed is considerable the jumper can not throw forward his legs to the full limit, or, if he does, he will only fall back and spoil the effort.

THE JUMP.—Get up good speed, reach the take-off squarely with the jumping foot and strive to go up and forward into the air at an angle of 45 or 50 degrees. Without elevation there can be no distance. A good method to attain height in practise is to place a hurdle from 8 to 10 feet from the take-off and jump over it. Throw the arms up and out and fix the eyes on a point considerably higher than the probable landing-place. After the take-off the legs come forward until the knees are well up under the chin and the closed hands are thrust out at arms' length, balancing the body and throwing the center of gravity forward. The legs now undouble and the feet are stretched as far forward as experience has shown to be possible without upsetting the body. The upper part of the body again follows the legs forward until the whole is again doubled over like a jack-knife. In this position the feet come to earth. The momentum straightens the body again and brings it erect. On landing the feet should be thrust as far forward as safety will allow in order to gain every possible inch of territory and at the same time the

upper body, head and arms must be kept forward as well so as not to fall backward. Do not allow the feet to spread, but land with them side by side.

In competition if you find in the sprint that you have lost your stride, slow up before the take-off is reached and try over. If you can help it do not make the jump unless you are certain of losing no territory at the take-off.

The jumper's costume is the same as the runner's.

III. High Jumping

Preparation for the running high jump should begin in the gymnasium with exercises for the development of the muscles of the chest, back and legs. Without such development it is not possible to excel over the high bar. Outdoor training should begin with easy runs of from 200 to 300 yards in which special attention is paid to the exercising of the leg muscles. The first attempts at the jump should be made with the bar not over 3 feet high. After the muscles of the legs and upper body have become fairly supple and a certain degree of form has been gained raise the bar to 4 feet or thereabouts and from that height work upward by degrees, always being careful to keep on jumping at one height until you have learned to take that height quickly, easily and gracefully.

FORM is the first thing for consideration after the preliminary training of the muscles has been attended

to. The old-fashioned method of going at the bar side-wise and "cutting" the legs over one after another has been done away with. Nowadays the jump is made from a position facing or very nearly facing the bar. After leaving the ground a half twist of the body is made, bringing the jumper's side to the bar. At the rise the forward leg, preferably the right, is thrown high up, the shoulders are thrown back and the arms up and forward. At the same time the other foot, the one from which the jump was made, is brought sharply up. The forward leg passes over the bar about parallel to the ground and practically at right angles to the bar. The left leg follows while partly doubled up, the foot being about in front of the crotch as it goes over. The upper body passes the bar almost as soon as the left leg, the twist still operating and bringing the body side-to as the bar is surmounted and face to the bar as the feet land in the pit.

As in the running broad jump the place where the stride is reached and the take-off must be determined by experiment. It is usual to locate the mark three long strides from the take-off, while the latter will be approximately the same distance from the sill between the standards as the bar is from the sill. A run of 75 or 80 feet at a slow pace brings the jumper to his mark. He should reach it with his right foot, take the next three strides at a fast rush, bearing well toward the left side of the path, and so reach the take-off on his left foot, which gives the body twist necessary. A

jumper who takes off on his right foot will, of course, bear to the right of the path instead.

This twist is one of the first things the jumper should master. A sharp backward pull of the left shoulder, if the take-off is from the left foot, is half the secret. In learning to manage the legs it should be realized that if each leg be brought up with a forceful jerking motion the body will be thrown farther into the air than if the legs are raised more gradually. The severest strain on the muscles comes when the effort to raise the left leg to clear the bar is made. Here the arms and torso bear the work, and it is in the perfecting of this part of the jump that the most time will be required. The jumper should keep his gaze on the middle of the bar from the time he leaves his mark until he is passing over.

ATTIRE.—The high jumper's costume is similar to the broad jumper's save in the matter of footwear. It is customary to wear on the jumping foot a shoe somewhat heavier than that on the other foot. Many vaulters and jumpers have a piece of rubber either inside or outside of the shoe on the heel. This gives more spring and saves the jar upon the heel. The jumping-foot shoe should be fitted with two heel spikes as well as the usual six spikes in the toe. The other shoe should have the toe spikes only.

Before entering a competition the jumper should read and understand the rules of high jumping, especially as regards balks and declining the jump.

IV. Hammer Throwing

This is one of the oldest of present-day field sports and had its origin in the *roth-cleas* or wheel feat of the first Tailtin games held in County Meath, Ireland, in 1370. Various forms of weight throwing followed until in the last century casting the sledge became an established event of athletic games in Great Britain and Ireland. In 1866 the weight of the hammer was fixed at 16 pounds, but the length of handle was left a matter of individual taste. Under these conditions a throw of 120 feet was made in 1873 by S. S. Brown, of Oxford University. In 1875 further restrictions were laid down; the length of the handle was limited to $3\frac{1}{2}$ feet and the circle from which the throw was made was required to be 7 feet in circumference. In the English Championships of that year the hammer-throwing event was won by C. H. Hales with a throw of 96 feet. The following year he increased this to 110 feet, and then, using the old rules and with no restrictions as to run or follow, made the remarkable throw of 138 feet.

In this country the 7-foot circle was not adopted until 1888.

James S. Mitchell held the world's championship for many years, throwing the hammer with a single turn of the body and getting a record of 148 feet in

this style. Flannagan came into the field with a double turn of the body and bested Mitchell's record by 2 feet. In 1900 Plaw of California appeared with a triple turn and added 10 feet more to the record. Flannagan added another turn to his style and again went to the front.

'TRAINING.—Skill, muscle and quickness on the feet in about equal proportions go to make up the successful hammer thrower. Both may be attained by determined and assiduous practise. Gymnasium work should consist of all such exercises as tend to strengthen and develop the muscles of the arms and torso. Outdoor work should begin as soon as the ground is in condition; weather conditions have little interest for those training for the weight events. The boy who has weight to start with is at an advantage, all other things being equal, over the boy who is light. The boy of 150 pounds with a nice development of arm and back muscles has the possibilities of a good hammer thrower in him.

At interscholastic meetings the 12-pound hammer is usually made use of, while the 16-pound hammer is used by college men. Practise should always be begun with the lighter weight. A very satisfactory 12-pound hammer may be bought for \$3 and the best for \$4.25. These are respectively of iron and lead with wire handles.

THE THROW is made from a ring 7 feet in diameter, outside of which the thrower may not step. In competition each contestant is given three tries, the best

to count. For the finals the three best men in the first trial are selected and are allowed three tries more each. Reference to the rules will give a clearer understanding in this matter. The first thing to learn is how to make the turns. Since the advent of the Pacific Coast Champion, Plaw, these turns have been three in number. The philosophy of the hammer throw is clearly explained by Mitchell as follows: "A very slight grasp of mechanical principles will show that the hammer-head is, as it were, attached to the circumference of a revolving circle, the motive power being supplied by the spinning human body at the center. At the moment of delivery the centrifugal force causes the hammer to fly off in a straight line. It follows that the hammer will fly farthest when the greatest momentum can be produced."

THE SWINGS.—After entering the circle the thrower should stand near the back and grasp the handle of the hammer firmly with both hands, the head of the hammer resting as far outside of the circle as the reach will permit. Leaning well over with feet spread sufficiently to obtain a perfect equilibrium, he should bring the hammer around in front of him. The motion is at first slow, but by the time the hammer has completed the first circuit it should be swinging straight out from the shoulders and revolving at good speed. Usually three swings about the head are made, the utmost speed being secured at the completion of the third. During these swings the feet maintain their



THROWING THE HAMMER.

John De Witt, of Princeton.

positions and the arms do the work. With the completion of the last swing comes the beginning of the first turn.

THE TURNS.—The effort now must be to move the body faster than the swinging hammer in order to still further increase the momentum of the latter. The body turn must be commenced while the head of the hammer is yet well behind the body; otherwise, instead of the thrower pulling the hammer around the hammer will pull the thrower around—and ultimately throw him off his feet. The hammer, then, must always be kept well behind the motion of the body. With every turn the speed of the revolving body should be increased until at the end of the third turn the motion is a veritable whirl.

THE MANAGEMENT OF THE FEET during this performance is a trick to be learned only by practise and is beyond the scope of written explanation. The three turns are not to be made in the same place; each successive one should bring the body nearer to the rim of the circle opposite from where it first stood, so that when the last turn is completed the thrower's feet are as near the mark as safety will permit. If the turns are made to the left, as is usually the case, the left foot becomes a pivot on which the most of the weight of the body rests, the pivot moving gradually across the circle. The hammer, while it should move around the head in a generally horizontal position, should describe a turn half perpendicular so that when it is released it will

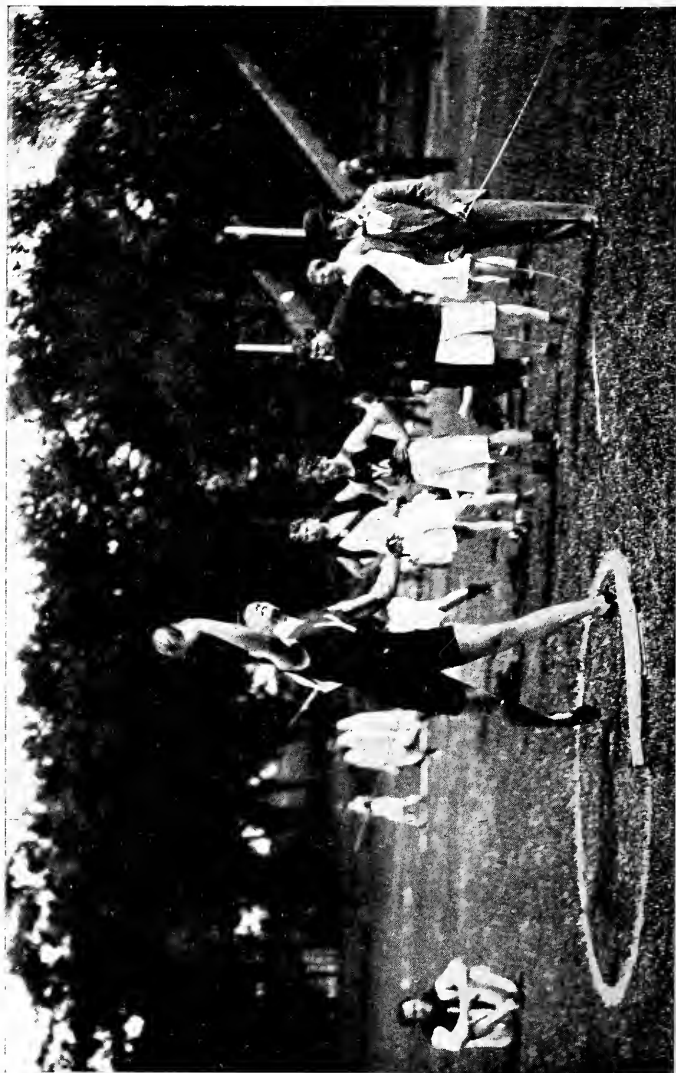
fly forward with a good elevation, which is necessary for distance.

THE RELEASE.—When the hammer is released the thrower does not face the direction in which the hammer is to go, but faces from half to three-quarters to the rear. That is, if the turns have been made toward the left the hammer flies away over the thrower's left shoulder or a little to the rear of it. At the moment of releasing all the weight and effort should be put into the throw, but there should be no jerk to retard the flight. After the hands have left the handle the only duty remaining to the thrower is to force his body away from the edge of the circle so as not to step outside and invalidate the throw. In leaving the circle after a trial the thrower must leave by the rear half.

V. Shot Putting

Like the hammer thrower, the shot putter begins his preparation in the gymnasium in the early winter. Particular attention must be given by him to the development of the muscles of the arms. For this parallel-bar exercise and bag punching are especially valuable. As soon as the muscles have received some attention he should begin work with the leather-covered shot on the gymnasium floor. In spring sprinting work on the cinders will develop quickness, which is one of the most important things that the shotman can possess.

THE POSITION.—As in the hammer throw, a 7-foot



PUTTING THE SHOT.
Richard Sheldon, of Yale.

circle is used. Stand at the rear of the circle, lift the shot with both hands from the ground and hold it in the left if you are to make the right-handed throw. Stand with your left side to the front of the circle, change the shot to the right hand and bring that hand back of and above the shoulder, throwing the other forward and upward in the general direction in which the shot is to go. Your weight should now be almost entirely on your right leg, the left leg steadying the body and the outstretched left arm helping in the maintaining of the balance. Both legs are bent at the knees and the position is a slightly crouching one. The muscles of the right arm should next be limbered and stretched by raising and lowering the weight several times.

THE FIRST STEP.—Now take the first step forward. This step is variously made. Some shot putters raise the left leg high and make what is practically a hop; others perform something very much like a glide, the knees remaining well bent and the body retaining the crouching attitude. The latter method is generally conceded to be the better form; at all events, it is less likely to disturb the balance of the body. The glide should bring the thrower past the center of the circle with his left foot close to the stop-board, which is set in the front of the ring. During the glide the shot should rest easily in the palm of the right hand and the elbow should be kept as close to the body as possible.

CHANGING THE FEET.—Now comes what is in real-

ity the only difficult feature of the event, and it is this feature which will require lots of practise. The moment the ground is felt under the left foot that foot is brought backward again and the entire right side of the body is thrown forward, the right shoulder pointing toward where the shot is to go. It is just this quick transposition of the feet and change of balance which many shot putters find impossible to thoroughly master. There must be no stop from start to finish; the motion from the moment the body moves in the first step forward until the shot leaves the hand must be continuous.

THE PUT.—As the right side of the body comes to the front the right arm must be thrown straight outward at an angle of about 50 degrees with much the same motion used in delivering a direct punch at a bag hanging about level with the head. Put all your arm power into it and remember that the movement is a hard, sharp thrust rather than a throw. The impetus is given not so much by the power of the arm as by the weight of the body, which must be behind the put at the right instant. This body weight is in turn given by the movement across the circle and the quick half turn, and it is in the "getting the weight on" that such shot putters as Sheldon excel. The shot when it leaves the hand should not be sped forward by any movement of the fingers, but should leave the palms easily over the side.

In shot putting as in broad jumping the gaze should

be fixed upon a point well above the probable goal and held there until the trial has been made in order to secure elevation, which is essential to distance.

THE RIGHT ANKLE is subjected to a good deal of exertion and should be protected and strengthened by the wearing of an elastic anklet or bandage. Some shot putters have found it advisable to wear a high shoe furnished with an ankle brace on this foot.

FOULING.—As in the hammer-throwing event, the trial becomes a foul if any part of the body touches any part of the field in front of the circle or touches the top of the stop-board. It is very easy to let the foot touch the latter and the beginner should learn to control the impetus of the body in time to avoid this kind of a foul.

FORM is the first thing to acquire in this event, and the acquiring of it is a matter of patient and steady work. Don't hope to become a crack shot putter in one year; don't be disappointed if it takes two; don't be discouraged if it takes three. Don't continue to work after you have become tired; practise beyond that point will benefit you very little. After you have mastered the art of the event practise three times a week will be all required.

ATHLETIC RECORDS

PRINCIPAL EVENTS OF 1903

Massachusetts Interscholastic A. A. track meet at Amherst, Mass., June 20: Springfield High won with 86 points; Westfield, 24; Holyoke, 13; Amherst, 10.

Wesleyan Interscholastic track meet at Middletown, Conn., May 30: Springfield High, $48\frac{1}{2}$; Hartford, $30\frac{1}{2}$; Westfield, $24\frac{1}{2}$; New Britain, 10; Meriden, 4.

New Jersey Interscholastic A. A. meet at Elizabeth, N. J., June 6: Newark Academy, $57\frac{1}{2}$; Montclair High, 30; Newark High and Stevens Prep, 22; East Orange, 16; Montclair Military Academy, $6\frac{1}{2}$.

Cornell-Pennsylvania dual meet at Ithaca, N. Y., May 16: won by Cornell, $66\frac{1}{2}$; Pennsylvania, $50\frac{1}{2}$.

Princeton-Columbia dual meet at New York city, June 16: won by Columbia, $58\frac{1}{2}$; Princeton, $45\frac{1}{2}$.

New York and Trinity (Hartford) dual meet at New York, May 9: won by New York, 85; Trinity, 27.

At St. Louis, Mo., May 30: Interscholastic meet won by St. Louis High, 46; Bliss Military Academy, 2d, 31.

At Orange, N. J., May 2: Pratt Institute, 24; Horace Mann, 2d; Erasmus Hall, 3d.

Maryland Interscholastic meet, Baltimore, May 12: Baltimore City College won, $40\frac{1}{2}$.

Detroit Interscholastic League Championships at Detroit, May 9: Detroit University School won, 70.

Indiana Interscholastic meet at Bloomington, May 16: Indianapolis Manual-Training won.

Chicago-Wisconsin dual meet at Madison, Wis., May 23: Chicago won, $72\frac{1}{2}$; Wisconsin, $43\frac{1}{2}$.

Purdue and Oberlin dual meet at Oberlin, Ohio, May 23: tied; 56 each.

Princeton and Yale dual meet at Princeton, N. J., May 9: Yale won, 75; Princeton, 29.

Princeton University Interscholastic Athletic Association meet at Princeton, N. J., May 2: Mercersburg, 42; Lawrenceville, 2d; Hill, 3d.

Chicago-Illinois dual meet at Chicago, Ill., May 9: Chicago won, 74; Illinois, 52.

Stanford-California dual meet, April 18: Stanford won, 63½; California, 58½.

Rhode Island Interscholastic League meet at Providence, R. I., June 6: Hope, 50; Classical, 46; Woonsocket, 3.

Dartmouth-Massachusetts Institute of Technology dual meet at Hanover, N. H., May 8: won by M. I. T., 94; Dartmouth, 71.

Southern Michigan Interscholastic meet at Albion, Mich., May 30: Ann Arbor, 48; Battle Creek, 26; Muskegon, 12.

Johns Hopkins-Virginia dual meet at Baltimore, Md., May 7: Johns Hopkins won, 55; Virginia, 33.

Dartmouth Interscholastic invitation meet at Hanover, N. H., June 3: Kimball Union Academy, 41; Williston, 26; Concord High, 12½; Dummer, 10.

New Hampshire Interscholastic meet at Concord, May 29: Kimball Union Academy, 55; Concord, 40; Manchester High, 31; Pinkerton, 6; Richards High, 5; Holderness, 3.

Carlisle-Bucknell dual meet at Carlisle, Pa., May 16: won by Carlisle, 61½; Bucknell, 42½.

Syracuse-Williams dual meet at Syracuse, N. Y., May 16: won by Syracuse, 75½; Williams, 41½.

Pennsylvania-Columbia dual meet at Philadelphia, May 8: Pennsylvania won, 68; Columbia, 49.

Virginia-North Carolina dual meet at Charlottesville, Va., May 15: Virginia won, 56; North Carolina, 45.

Purdue-Northwestern dual meet at Evanston, Ill., May 16: Purdue won, 67; Northwestern, 45.

Washington (St. Louis)-Missouri dual meet at Columbus, Mo., May 25: won by Washington, 71; Missouri, 25.

Annual Interscholastic meet at Elizabeth, N. J., May 16: won by Pratt Institute, 35.

Williams Interscholastic meet at Williamstown, Mass., May 9: won by Adams High, 31.

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Long Island Interscholastic Championships at Long Island City, N. Y., May 23: won by Brooklyn High, 44½.

New York-Rutgers dual meet at New York city, May 16: won by New York, 37; Rutgers, 35.

Northwestern Interscholastic meet at Evanston, Ill.: won by Hyde Park, 23; Lewis Institute, 20.

Phillips Andover-Phillips Exeter dual meet at Andover, Mass., May 30: won by Andover, 58½; Exeter, 37¾.

Michigan-Chicago dual meet at Ann Arbor, Mich., May 16: won by Michigan, 83½; Chicago, 42½.

New England Intercollegiate meet at Worcester, Mass., May 23: won by Amherst, 51; Williams, 31; M. I. T., 30; Dartmouth, 15; Bowdoin and Wesleyan, each 13; Brown, 7; Trinity (Hartford), 3; Vermont, 2.

Michigan-Cornell dual meet at Ann Arbor, Mich., March 28: won by Michigan, 42½; Cornell, 29½.

Harvard Interscholastic meet at Cambridge, Mass., June 6: won by Phillips Andover, 47; Phillips Exeter, 30½; Worcester Academy, 23½; Stone's, 10; Dummer, 6; Dedham High, 5; Lowell High, 5; Springfield High, 3; Mechanic Arts High, 2.

Harvard-Yale dual meet at New Haven, Conn., May 23: won by Yale, 58; Harvard, 46.

Cornell-Princeton dual meet at Albany, N. Y., May 23: won by Cornell, 67; Princeton, 50.

Hamilton-Wesleyan dual meet at Albany, N. Y., May 16: won by Hamilton, 60½; Wesleyan, 56½.

Iowa High-School meet at Grinnell, Iowa, May 23: won by Grinnell, 33.

Maine Interscholastic championships at Orono, May 23: won by Bangor High, 35.

Northwestern-Indiana dual meet at Evanston, Ill., May 23: won by Northwestern, 72; Indiana, 40.

Intercollegiate A. A. A. A. Annual Championships at New York, May 30: won by Yale, 41½; Harvard, 41; Yale's victory secured her the permanent possession of the cup.

Intercollegiate Conference meet at Chicago, May 30: Michigan won, 49.

COLLEGIATE RECORDS OF THE UNITED STATES

Corrected to June 1, 1903

100 yards—9 $\frac{3}{4}$ s., A. F. Duffey, Georgetown.220 yards—21 $\frac{1}{2}$ s., B. J. Wefers, Georgetown.Quarter-mile run—47 $\frac{3}{4}$ s., W. Baker, Harvard.Half-mile run—1m. 53 $\frac{3}{4}$ s., C. H. Kilpatrick, Union.1-mile run—4m. 23 $\frac{3}{4}$ s., G. W. Orton, Pennsylvania.

2-mile run—9m. 40s., W. E. Schutt, Cornell.

1-mile walk—6m. 42 $\frac{3}{4}$ s., W. B. Fetterman, Jr., Pennsylvania.120-yards hurdle—15 $\frac{3}{4}$ s., S. Chase, Dartmouth; A. C. Kraenzlein, Pennsylvania.220-yards hurdle—23 $\frac{3}{4}$ s., A. C. Kraenzlein, Pennsylvania.

Running high jump—6ft. 4in., W. B. Page, Pennsylvania.

Running broad jump—24ft. 4 $\frac{1}{2}$ in., A. C. Kraenzlein, Pennsylvania.

Pole-vault—11ft. 7in., D. S. Horton, Princeton; H. L. Gardner, Syracuse.

Throwing 16lb. hammer—165ft. $\frac{1}{2}$ in., A. Plaw, California.

Putting 16lb. shot—46ft., F. Beck, Yale.

SOUTHERN INTERCOLLEGIATE A. A. RECORDS

100-yards dash—10 $\frac{1}{2}$ s., Selden, Sewanee, and Osborne, North Carolina. 220-yards dash—23 $\frac{1}{2}$ s., Ehleman, Tulane. 440-yards dash—50 $\frac{3}{4}$ s., Jones, Vanderbilt. 880-yards run—2m. 5 $\frac{1}{2}$ s., Van Ness, Alabama Polytechnic Institute. 1-mile run—4m. 48s., Harvey, Alabama Polytechnic Institute. 120-yards hurdles—16 $\frac{3}{4}$ s., Buchanan, Sewanee. 220-yards hurdles—27 $\frac{1}{4}$ s., Whiteman, Vanderbilt. Putting 16-pound shot—40ft. 7in., Crutchfield, Vanderbilt. Throwing 16-pound hammer—114ft. 10 $\frac{1}{2}$ in., Parrish, University of Texas. Running high jump—5ft. 9in., Cowan, Georgia Technology. Running broad jump—21ft. 1 $\frac{1}{2}$ in., Edwards, University of Tennessee.

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BEST INTERSCHOLASTIC RECORDS OF THE UNITED STATES

Compiled by J. E. Sullivan, Secretary of the Amateur Athletic Union

100-yards dash—10s., T. Bigelow, 1894; H. Loomis, 1895; J. McCulloch, 1897; T. McDonald, 1899; A. Duffy, 1899; C. Pierce, 1900; W. Schick, 1901; C. Blair, 1901.

220-yards dash—21 $\frac{3}{4}$ s., W. Schick, 1900-'01.

440-yards dash—50 $\frac{1}{2}$ s., C. Long, 1901.

880-yards run—1m. 59 $\frac{3}{4}$ s., L. Adsit.

1-mile run—4m. 32 $\frac{3}{4}$ s., W. Zanzig, 1894.

220-yards hurdle—25s., F. Scheuber, 1901.

Running high jump—6ft. 1in., A. Henley, 1898.

Running broad jump—22ft. 6 $\frac{1}{2}$ in., B. Chapin.

Pole-vault—10ft. 10in., E. Weir.

Putting 12-pound shot—52 ft. 22 $\frac{1}{100}$ in., Ralph Rose, San Francisco, Cal., May 2, 1903.

Putting 16-pound shot—45ft. 6 $\frac{1}{2}$ in., Ralph Rose, San Francisco, Cal., May 2, 1903.

Throwing 12-pound hammer—171ft., F. Estes.

BEST RECORDS OF THE NEW ENGLAND INTER-COLLEGIATE A. A.

100-yards run—10s., A. E. Curtenius, Amherst, May 21, 1898; H. H. Cloudman, Bowdoin, May 18, 1901.

120-yards hurdle—15 $\frac{3}{4}$ s., Stephen Chase, Dartmouth, May 18, 1896.

440-yards run—50 $\frac{1}{2}$ s., G. B. Shattuck, Amherst, May 27, 1892.

880-yards run—1m. 59 $\frac{1}{2}$ s., H. S. Baker, M. I. T., May 24, 1903.

1-mile run—4m. 25 $\frac{3}{4}$ s., A. L. Wright, Brown, May 21, 1898.

2-mile run—10m. 3 $\frac{3}{4}$ s., O. N. Bean, Brown, May 21, 1898.

220-yards run—22 $\frac{1}{2}$ s., H. H. Cloudman, Bowdoin, May 19, 1900.

2-mile bicycle—4m. 17 $\frac{3}{4}$ s., R. Murray, M. I. T., May 19, 1900.

Putting 16-pound shot—42ft. 6 $\frac{1}{2}$ in., S. R. E. Rollins, Amherst, May 24, 1903.

Throwing 16-pound hammer—134ft. 2½in., A. C. Denning, Bowdoin, May 24, 1903.

Running high jump—5ft. 9¾in., I. K. Baxter, Trinity, May 23, 1896.

Running broad jump—22ft. 5¼in., H. C. Van Weelden, Trinity, May 24, 1903.

Pole-vault—11ft. 6½in., J. L. Hurlburt, Jr., Wesleyan, May 24, 1898.

Throwing discus—116ft., A. M. Watson, Univ. of Maine, May 24, 1903.

220-yards hurdle—25½s., G. P. Burch, M. I. T., May 21, 1898; P. P. Edson, Dartmouth, May 18, 1901.

NEW YORK INTERSCHOLASTIC ATHLETIC ASSOCIATION OFFICIAL RECORDS

Corrected to June, 1903

100-yards run—10½s., P. Dalsheimer, Columbia Grammar, 1901.

100-yards run, junior—10¾s., H. N. Kahn, Sachs, 1901.

220-yards run—22¾s., L. T. Sheffield, Berkeley, 1903.

220-yards run, junior—23¼s., H. Moeller, Columbia Grammar, 1894.

440-yards run—52¾s., C. E. I. Martin, Berkeley, 1895; H. S. Washburn, Barnard, 1896.

880-yards run—2m. 3s., W. S. Hipple, Barnard, 1897.

1-mile run—4m. 38s., P. H. Christensen, Berkeley, 1898.

120-yards hurdle—3ft. 6in.—16¾s., C. A. O'Rourke, Jr., Trinity, 1897.

220-yards hurdle—2ft. 6in.—26¾s., S. A. Syme, Barnard, 1895.

High jump—6ft. 1½in., J. S. Spraker, Berkeley, 1899.

Broad jump—21ft. 11½in., J. S. Spraker, Berkeley, 1899.

Hammer—128ft. 9in., E. Flammer, Columbia Grammar, 1900.

Shot—43ft., R. W. Rogers, Trinity, 1899.

Discus—97ft. 8½in., H. Connolly, De La Salle, 1900.

Pole-vault—10ft. 7¾in., J. H. Hurlburt, Berkeley, 1896.

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BEST INDOOR RECORDS OF THE NEW ENGLAND INTER-SCHOLASTIC A. A.

40-yard dash—4 $\frac{3}{8}$ s., H. C. Kennington, English High School, 1897; A. F. Duffey, Worcester Academy, 1898; F. B. Scheuber, Hopkinson School, 1901; R. J. Leonard, Newton High School, 1902; N. M. Van Amringe, Mechanic Arts High School, 1902; C. R. Leonard, Newton High School, 1903.

300-yard run—35s., M. Williams, Noble & Greenough's School, 1902.

600-yard run—1m. 20s., A. C. Perry, Worcester High School, 1901.

1000-yard run—2m. 28 $\frac{1}{2}$ s., H. T. Murphy, Worcester High School, 1903.

1-mile run—4m. 45 $\frac{1}{2}$ s., J. J. Butler, Worcester High School.

45-yard low hurdles—5 $\frac{3}{8}$ s., F. B. Scheuber, Worcester Academy, 1899; H. H. Freeman, Worcester High School, 1902; J. F. Doyle, Worcester Academy, 1903.

Running high jump—5ft. 10 $\frac{1}{8}$ in., H. S. Gardner, Worcester Academy, 1899.

Putting 16-pound shot—45ft. 9 $\frac{1}{2}$ in., H. Le Moyne, Stone's School, 1903.

Pole vault—10ft. 7 $\frac{1}{4}$ in., H. S. Gardner, Worcester Academy, 1899.

Team race—3m. 18 $\frac{1}{2}$ s., D. C. Noyes, W. Minot, B. L. Young, Jr., M. Williams, Noble & Greenough's School, 1902.

RECORDS ALLOWED

At the National Convention of the Amateur Athletic Union in November the following records were officially passed upon and allowed: 70-yard hurdle, five hurdles, 2ft. 6in.—L. G. Blackmer, New York, February 28, 1903. Time—0:8 $\frac{3}{4}$. 75-yard hurdle, six hurdles, 3ft. 6in.—M. Bockman, Milwaukee A. C., March 7, 1903. Time—0:10. 120-yard hurdle, ten hurdles, 3ft. 6in.—E. J. Clapp, Berkeley Oval, May 30, 1903. Time—0:15 $\frac{3}{4}$.

70-yard run—W. A. Schick, Jr., New York, February 28, 1903. Time—0:07 $\frac{1}{2}$.

2-mile run—Alexander Grant, Travers Island, New York, September 26, 1903. Time—9:27 $\frac{1}{2}$.

3-legged race, 60 yards—W. S. Edwards and P. A. Sayles, New York, January 15, 1903. Time—0:07 $\frac{3}{4}$.

3-legged race, 100 yards—W. S. Edwards and P. A. Sayles, Bergen Beach, August 11, 1903. Time—0:12.

Throwing 56-pound weight, unlimited run and follow—J. S. Mitchell, New York A. C., Celtic Park, New York, September 7, 1903. Distance—38ft. 5in.

CROSS-COUNTRY CHAMPIONSHIP

The Fifth Annual Championship of the Intercollegiate Cross-Country Association was run over the Travers Island Course, November 25th; distance, a little over six miles. Cornell, Harvard, Yale, Princeton, Pennsylvania and Columbia were represented and finished in that order for team honors. There were thirty-nine starters and thirty-three finished, the first, W. E. Schutt, Individual Champion (Cornell), in 33m. 15s.; the last in 38m. 11s. Only the first four in each team counted, and the first twelve men were: W. E. Schutt (Cornell), 33m. 15s.; K. W. Woodward (Cornell), 33m. 18s.; W. J. Hail (Yale), 33m. 26s.; T. M. Foster (Cornell), 33m. 42s.; C. T. McGoffin (Cornell), 33m. 48s.; E. T. Newman (Cornell), 33m. 56s.; A. King (Harvard), 34m.; D. C. Munson (Cornell), 34m. 5s.; W. E. Colwell (Harvard), 34m. 8s.; S. Curtis (Harvard), 34m. 22s.; W. G. Howard (Harvard), 34m. 28s.; R. S. Trott (Cornell), 34m. 40s.

INTERCOLLEGIATE TEAM CROSS-COUNTRY CHAMPIONS

1899—Cornell University, 24 points, Morris Park, N. Y.

1900—Cornell University, 26 points, Morris Park, N. Y.

1901—Yale University, 22 points, Morris Park, N. Y.

1902—Cornell University, 24 points, Morris Park, N. Y.

1903—Cornell University, 12 points, Travers Island, N. Y.

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INTERCOLLEGIATE INDIVIDUAL CROSS-COUNTRY CHAMPIONS

- 1899—John F. Cregan, Princeton University, 34m. 5½s.
1900—Alexander Grant, University of Pennsylvania, 34m. 17s.
1901—D. W. Franchot, Yale University, 34m. 20s.
1902—A. C. Bowen, University of Pennsylvania, 35m.
1903—W. E. Schutt, Cornell University, 33m. 15s.

ADDITIONAL RECORDS

LAWS OF ATHLETICS

AS ADOPTED BY THE INTERCOLLEGIATE ASSOCIATION
OF AMATEUR ATHLETES OF AMERICA

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I.—OFFICERS

The officers of an athletic meeting shall be:

One Referee.

Four Inspectors to assist Referee.

One Scorer.

Five Assistant Scorers.

One Clerk of the Course.

Five Assistant Clerks of the Course.

One Reporter.

One Announcer, with Assistants, if necessary.

1. For Track Events:

Four Judges at the finish.

Three Time-keepers.

One Starter.

2. For Field Events:

Eight Field Judges or Measurers.

II.—REFEREE

He shall, when appealed to, decide all questions whose settlement is not otherwise provided for in these rules. His decision shall be final and without appeal.

In case a race has been drawn into heats, and no more contestants appear than enough to make one heat, the referee shall be empowered to see that the race is run in one heat; but in all races requiring more than one heat he shall see that no second man shall be debarred from a chance to qualify in the finals.

III.—JUDGES AT THE FINISH

Two shall stand at one end of the tape, and two at the other. One shall take the winner, another the second man, another the third man, and the other the fourth. In case of disagreement the majority shall decide. Their decision as to the order in which the men finished shall be final and without appeal.

IV.—FIELD JUDGES OR MEASURERS

They shall measure, judge and record each trial of each competitor in all games whose record is of distance or height. Their decision as to the performance of each man shall be final and without appeal. There shall be eight measurers: two for the hammer-throwing and shot-putting events, two for the high jump, two for the broad jump, and two for the pole-vault. These measurers shall be responsible for commencing their respective events promptly at 2 P. M. on each afternoon of the meet, and for their continuance without unnecessary delays. They shall excuse a contestant from a field event in which he is taking part, for a period long enough to contest in a heat in a track event, and allow said contestant to take his missed turn or turns in said field event within a reasonable time after the track heat. They shall see that reasonable opportunities are given to contestants who desire to try in two field events that are being contested at the same time.

V.—JUDGE OF WALKING

He shall have entire control of competitors during the race, and his decision as to unfair walking shall be final and without appeal.

The assistants shall do such portions of his work as he may assign to them.

VI.—TIME-KEEPERS

Each of the three time-keepers shall time every event; and in case two watches agree, and the third disagrees, the time

marked by the two shall be official time; and if all watches disagree, the time marked by the watch giving the middle time shall be the official time; if there be but two time-keepers, and their watches do not agree, the time marked by the slowest watch shall be the official time. Time shall be taken from the flash of the pistol.

VII.—CLERK OF THE COURSE

He shall record the name of each competitor who shall report to him, and shall give him his number for each event in which he is entered, and notify him before the start of every event in which he is engaged. He shall be responsible for getting out at the proper time the contestants for each event.

The assistants shall do such work as he may assign to them.

VIII.—SCORER

He shall keep a record of the starters and point winners in each event, together with their respective places. He shall record the laps made by each competitor, and call them aloud, when tallied, for the benefit of the contestants.

The assistants shall do such portions of his work as he may assign to them.

IX.—STARTER

He shall have entire control of competitors at marks, and shall be the sole judge of fact as to whether or not any man has gone over his mark. He shall be responsible for starting the track events promptly at 2 P. M. on each afternoon of the meet. He shall also be responsible for any unnecessary delay in the continuance of the said events.

X.—COMPETITORS

Immediately on arriving at the grounds, each competitor shall report to the clerk of the course and obtain his number for the game in which he is entered. He shall inform himself of the times at which he must compete, and shall report promptly at the start, without waiting to be notified. No competitor shall be allowed to start without his proper number.

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XI.—PROTESTS

Verbal protests may be made at or before any athletic meeting, against a competitor or team, by any competitor or college competing; but such protest must be subsequently, and before action thereon, made in writing and duly presented to the Association.

XII.—INNER GROUNDS

No person whatever shall be allowed inside the track, except the officials and properly accredited representatives of the press. Authorized persons shall wear a badge. Competitors not engaged in the game actually taking place shall not be allowed inside or upon the track.

XIII.—TRACK

The measurement of tracks shall be 18 inches from the inner edge, which edge shall be a solid curb raised 3 inches above the level of the track.

XIV.—ATTENDANTS

No attendant shall accompany a competitor on the scratch or in the race.

XV.—STARTING SIGNALS

All races (except time handicaps) shall be started by the report of a pistol, the pistol to be fired so that its flash may be visible to the time-keepers. A snap cap shall be no start. There shall be no recall after the pistol is fired. Time handicaps shall be started by the word "Go."

XVI.—STARTING

When the starter receives a signal from the judge at the finish that everything is in readiness, he shall direct the competitors to get on their marks. Any competitor starting before the signal shall be put back one yard, for the second offense another yard and for the third shall be disqualified. He shall be held to have started when any portion of his body touches the ground in front of his mark. Stations count from the inside.

XVII.—KEEPING PROPER COURSE

In all races on a straight track each competitor shall keep his own position on the course from start to finish. In the 100- and 220-yards dashes, courses for contestants shall be marked out by stakes protruding 18 inches from the ground, and connected at the top by a cord or wire plainly marked.

XVIII.—CHANGE OF COURSE

In all races other than on a straight track, a competitor may change toward the inside whenever he is two strides ahead of the man whose path he crosses.

XIX.—FOULING

Any competitor may be disqualified by the referee for jostling, running across, or in any way impeding another.

XX.—FINISH

A thread shall be stretched across the track at the finish, 4 feet above the ground. It shall not be held by the judges, but fastened to the finish posts on either side, so that it may always be at right angles to the course and parallel to the ground. The finish line is not this thread, but the line on the ground drawn across the track from post to post, and the thread is intended merely to assist the judges in their decision. The thread must, however, be "breasted" by each competitor finishing first, and no competitor shall be allowed to seize the thread with his hands. The men shall be placed in the order in which they cross the finish line.

XXI.—WALKING

The judge shall caution for any unfair walking, and the third caution shall disqualify the offender. On the last one-eighth (220 yards) of a mile, an unfair walker shall be disqualified without previous caution.

XXII.—HURDLES

120-yards hurdle race shall be over ten hurdles, each 3 feet 6 inches high. The first hurdle shall be placed 15 yards from the scratch, and there shall be 10 yards between each hurdle. 220-yards hurdle race shall be over ten hurdles, each 2 feet 6 inches high. The first hurdle shall be placed 20 yards from the scratch, and there shall be 20 yards between each hurdle. Hurdle races of different number and height of hurdles may be given. No record shall be made in a hurdle race unless each of the hurdles, at the time the competitor jumps the same, is standing.

XXIII.—JUMPING

No weights or artificial aid will be allowed in any jumping contest except by special agreement or announcement. When weights are allowed, there shall be no restrictions as to size, shape or material.

XXIV.—RUNNING HIGH JUMP AND POLE-VAULT

The height of the bar at starting and at each successive elevation shall be determined by the measurers. Three tries allowed at each height. Each competitor shall make one attempt in the order of his name on the program; then those who have failed (if any) shall have a second trial in regular order, and those failing on this trial shall take their final trial. A competitor may omit his trials at any height, but if he fail at the next height he shall not be allowed to go back and try the height he omitted. Each competitor shall be credited with the best of all his jumps or vaults.

High Jump—A line shall be drawn 3 feet in front of the bar and parallel therewith, and stepping over such line, to be known as the balk-line, in any attempt, shall count as a balk. Three balks shall count as a "try." Displacing the bar shall count as a "try."

Pole-Vault—A line shall be drawn 15 feet in front of the pole and parallel therewith, and stepping over such line, to be known as the balk-line, in any attempt, shall count as a balk.

Two balks to count as a "try." Displacing the bar or leaving the ground in an attempt shall count as a "try." The poles shall be unlimited as to size and weight, but shall have no assisting devices, except that they may be wound or wrapped with any substance for the purpose of affording a firmer grasp, and may have one prong at the lower end.

No competitor shall, during his vault, raise the hand which was uppermost when he left the ground to a higher point of the pole, nor shall he raise the hand which was undermost when he left the ground to any point on the pole above the other hand.

Any competitor who uses a pole without a spike shall be allowed to dig a hole not more than 1 foot in diameter at the take-off in which to plant his pole.

XXV.—RUNNING BROAD JUMP

The competitors shall have unlimited run, but must take off from or behind the scratch. The scratch line shall be a joist 5 inches wide, the ground in front of which shall be removed to the depth of 3 and the width of 6 inches. Stepping over the scratch in an attempt shall be no jump, but shall count as a "try." Each competitor shall be allowed three trials, and the best four men shall have three more trials each. Each competitor shall be credited with the best of all his jumps. The measurement shall be from the outer edge of the joist to the nearest break of the ground made by any part of his person. A line shall be drawn 6 feet in front of the scratch line, and stepping over such line in an attempt shall count as a balk; three balks count as a "try."

XXVI.—PUTTING THE SHOT

The shot shall be a metal sphere weighing 16 pounds. It shall be put from the shoulder with one hand, and during the attempt it shall not pass behind nor below the shoulder. It shall be put from a circle 7 feet in diameter, 4 feet of whose circumference shall be a toe board, 4 inches in height. Foul puts, which shall not be measured, but which shall count as puts, are as follows:

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1. Letting go of the shot in an attempt.
2. Touching the ground outside the circle with any portion of the body while the shot is in hand.
3. Touching the ground forward of the front half of the circle with any portion of the body before the put is measured.

Each competitor shall be allowed three puts, and the best four men shall each be allowed three more puts. Each competitor shall be credited with the best of all his puts. The measurement of the put shall be from the nearest edge of the first mark made by the shot to the point of the circumference of the circle nearest such mark.

XXVII.—THROWING THE HAMMER

The hammer head shall be a metal sphere. The handle may be of any material, and the combined length of the head and handle shall not be more than 4 feet, and the combined weight shall not be less than 16 pounds.

The hammer shall be thrown from a circle 7 feet in diameter. In making an attempt a competitor may assume any position he pleases. Foul throws, which shall not be measured but which shall count as throws, are as follows:

1. Letting go of the hammer in an attempt.
2. Touching the ground outside the circle with any portion of the body while the hammer is in hand.
3. Touching the ground forward of the front half of the circle with any portion of the body before the throw is measured.

Each competitor shall be allowed three throws, and the best four men shall each be allowed three more throws. Each competitor shall be credited with the best of all his throws. The measurement of the throw shall be from the nearest edge of the first mark made by the head of the hammer to the point of the circumference of the circle nearest such mark.

XXVIII

Associate clubs shall have entire charge of the entries of their own members in athletic meetings, provided, always, that no member shall enter, compete or take part in any event at any

athletic meeting, the entries to which event shall not be limited to amateur athletics. This rule, however, shall not prevent this Association or its Executive Committee from prohibiting entries to any event or events.

XXIX

In all classes of limit events, competitors shall not be debarred by reason of having made a better record after the closing of entries for such event.

XXX

All cases of dispute and any question that may arise not provided for in these laws, and in the interpretation of these laws, shall be referred to the Executive Committee of the Association.

XXXI

An intercollegiate record is any record made at the annual meeting of the I. C. A. A. A. A.

A collegiate record is one made at any meet held by a member of the I. C. A. A. A. A.

The I. C. A. A. A. A. shall keep a list of all intercollegiate records, and another of all collegiate records.

XXXII

This Association shall from time to time give its approval to all records made in standard "collegiate" games, and when so desired shall in its discretion inquire into and give its approval to all other (collegiate) athletic records and games.

No record in running or walking shall be given, unless the same shall be timed by at least two official time-keepers, or by assistant time-keepers appointed by the referee.

No record shall be given in the high, standing or broad jump, pole-vaulting, putting the shot or throwing the hammer, unless the same shall be measured by at least two official measurers.

Said timers and measurers shall be regularly approved by the "club" or association giving games, or by the referee.

RULES TO GOVERN THE AWARDING OF THE CHAMPIONSHIP CUP OF THE I. C. A. A. A. A.

RULE I

This cup shall be awarded to that college of the Intercollegiate Association of Amateur Athletes of America which shall be champion from one field meeting to the next.

RULE II

SECTION 1.—That college shall be champion which shall score a plurality of points.

SEC. 2.—Points shall be counted as follows:

A first place shall count five points.

A second place shall count three points.

A third place shall count two points.

A fourth place shall count one point.

In case of a tie the points shall be divided.

SEC. 3.—In the case of two or more colleges scoring an equal number of points, then if one of these colleges shall have been champion for the previous year, that college shall continue to hold the championship and cup for the ensuing year.

SEC. 4.—But in case the champion of the previous year be not of those colleges described under Section 3 of Rule II, and that two or more colleges shall score an equal number of points, then for the ensuing year the championship shall be held in abeyance, and merely the names of the colleges that make the tie, together with the date and place of performance, shall be inscribed on the cup, and the cup shall be kept for the year by the Association.

RULE III

All disputes in regard to the possession of the cup shall be referred to the Association.

LACROSSE

EDITED BY RONALD TAYLOR ABERCROMBIE, JOHNS HOPKINS, 1900.

EDITOR'S PREFACE

LACROSSE, like any other game of skill, must be played by each individual according to his own ideas at the moment of play. But there are certain underlying principles—certain things from the experience of those who have played the game—that every man who expects to take up lacrosse should know before he even takes a stick in his hands. These the editor feels are brought out in the following pages. Any one with a desire to learn and a good brain, and no other should essay to learn lacrosse, can glean from these pages much that will be of value.

Lacrosse in the United States is still in its infancy, and as a consequence no distinctive system has been generally adopted. So that the system here presented lays no claim to being a generally accepted one. It is merely a compilation, a patchwork if you will, from the systems of various teams, North and South. It has the weakness of any compilation, lack of coherence, and the strength of any combination, a variety of points of view. The principles underlying it all are the great principles of lacrosse, and upon it it is believed that a consistent effective team-play can be built.

The editor hopes that it may be of value to the progress of the game in America.

R. T. A.

CHAPTER I.

THE GAME AS IT WAS AND IS

A great many years ago—just how many history doesn't reveal—a member of one of the tribes inhabiting the northern part of this continent discovered that a small sphere could be made to travel much farther if hurled from the end of a short pole than if thrown from the hand. The name of this aboriginal Isaac Newton is lost in the mists of ages, but his works endure. From that discovery came the modern game of lacrosse.

Sixty years ago more than fifty tribes of American Indians were playing lacrosse. The manner of playing was similar throughout the country, but the different tribes had different names for the game. The Ojibways called it "Baggataway"; the Algonquins "Tei-ontsesiksaheks." The present name of lacrosse was conferred by the French-Canadian settlers, who saw in imagination a resemblance between the stick and a bishop's crozier.

The original "ball" was either fashioned by winding thongs of rawhide into the semblance of a sphere or made of deerskin and filled with hair. The crosse was at first a three-foot wand with the tip bent back and held in place by a rawhide cord, the space so formed

being netted with the same material. The resulting "spoon" was about four inches in diameter. Upon two such sticks, one held in each hand, the ball was deftly caught and carried, and from them thrown remarkable distances, if the tales we hear of olden games may be credited. It is said that Tullock-chish-ko, the greatest player of the Choctaw tribe, could throw a ball 220 yards. This is remarkable if so, for with our modern crosse only 160 yards have been attained.

As played by the Indians of the North, lacrosse was a grand *mêlée*, a battle royal, participated in by whole villages and often lasting from sunrise until noon, the wearied and disabled players dropping out and re-entering as the spirit moved them. No restriction was placed on the number of contestants nor upon the size of the battle-ground: often from four hundred to a thousand warriors took part, and the goals were anywhere from a quarter of a mile to a mile distant from each other. The object of the contending sides was to put the ball past the opposite goal and they were not particular as to how that feat was accomplished. It was a brutal game, a supreme test of physical endurance. In it the young bucks won their spurs and the "star" player was as greatly honored in his village as was the hero of many battles. Each side was under the direction of a chief, usually the most skilful player, while medicine-men acted as referees and umpires. The squaws, armed with rawhide whips, followed the game, inciting their braves with shrieks and yells, and sound-

ly lashing the flagging players to renewed exertions, thereby enacting the part of an aboriginal cheering section.

For extraordinary contests, such as games between rival tribes, the players, who had been preparing themselves for weeks by fasting, were selected a month beforehand and put in rigorous training to develop their wind and speed and render their muscles supple. On the night preceding the game the Great Spirit was invoked for victory at a wild dance about a huge fire during which the players, armed with their playing sticks, leaped and chanted until far into the night: not what we would nowadays consider an ideal preparation for a contest. The next morning the braves painted their faces and bodies and donned festoons of horse-hair or porcupine quills which, in the game, streamed from their backs like gorgeous tails.

A match usually lasted for several days and consisted of from forty to a hundred games, a game being terminated when the ball was put past a goal or had struck a tree or other obstacle selected as a goal. Play began in the early morning and lasted well into the afternoon.

When the sport was taken up by the Canadian whites many changes in the manner of playing were made. The length of the field was fixed—eventually at 125 yards—the number of players on each side was restricted to twelve, and the time of the game became from one hour to one hour and a half, a ten-minute intermission



POSITION OF BALL IN CROSSE.

The ball is well up in the body of the netting and the hands are well apart for a "sure" grip.

dividing the periods. One stick was used instead of two, rubber was substituted for raw-hide in the composition of the ball and the netting of the crosse was increased in area. A space about each goal was marked out and called the "crease," and into this attacking players were prohibited from entering to interfere with the goal-keeper so long as the ball was outside it.

The first Canadian club of prominence was the Montreal. In 1885 the National Amateur Lacrosse Association was formed. From Canada to the United States was an easy step, and soon the game was making friends on this side of the border. However, as early as 1882, on Washington's Birthday, the United States Intercollegiate Lacrosse Association was formed. For a time the sport gave every indication of becoming very popular. Interest died out, nevertheless, and in 1889 in New York the Association was reorganized with Princeton, Harvard, Lehigh and Johns Hopkins represented. Unfortunately for the prosperity of the game in this country the game died at Princeton and Harvard with the graduation of the men composing the first teams. Thus in 1891 only Lehigh, Stevens Institute and Johns Hopkins continued the organization. In 1902 Swarthmore was admitted. By the instigation of the enthusiasts at Baltimore and the influence of the original league, in 1898 and 1899 interest was revived in the game at some of the leading universities and a few preparatory schools. An organization was effected in 1899 by Cornell, Harvard and Columbia, and in 1901, with the addi-

tion of Pennsylvania, the Inter-University Lacrosse Association was formed. These two leagues coexist at present, but the supremacy has remained with the older organization. While for reasons of convenience these two leagues are separate and distinct, the most cordial relations exist, and games between the different teams comprising the leagues decide each year the collegiate championship of the country. Every season many well-played and interesting contests take place. The past few years have shown an increase in interest in the sport that is encouraging. Now that the preparatory schools are adopting the game, another year or so will see it in a most flourishing condition. Recently the visits of representative Canadian University teams, and in June, 1903, the visit of the English team, composed of Oxford and Cambridge players, have lent a healthy stimulus to the sport.

The merits of lacrosse are many and its faults are few. It is a healthful, vigorous sport, interesting and exciting to players and onlookers alike. It is refreshingly simple, requiring a minimum of paraphernalia and devoid of the dozens of technicalities which render both football and baseball difficult of enjoyment to the uninitiated. Bearing out this statement is the fact that the rules of lacrosse occupy four pages, the rules of football ten and those of baseball fourteen.

As a game for the schoolboy it recommends itself at once. The outlay necessary for the formation of a team is slight; the clothing, a sleeveless or quarter-

sleeve shirt, a pair of running pants, canvas shoes with either rubber or leather soles, can be purchased for somewhat under three dollars. A good stick may be had for two dollars, and balls, bought singly, cost fifty cents. With these and four poles which when in the ground shall measure 6 feet to their tops, you have everything necessary save the field; and that should not be hard to find. One hundred and twenty-five yards is the indicated distance from goal to goal, but a far shorter field will answer, especially if, as may happen, your team numbers nine or ten players instead of twelve. And there are those who think lacrosse would gain by the elimination of two players from the dozen.

Lacrosse requires, however, something more than sticks and apparel. Cool judgment, speed and endurance are the most important requisites; skill may come later. Not even in football is team-play more essential, and the youth who goes into a lacrosse game with the intention of "doing it all himself" is destined to a rude awakening and, probably, a salutary defeat. Individual playing must be subordinated to team-work. The day of long runs the length of the field through the ranks of the enemy is over and it is skilful passing that wins the most goals. Each player is assigned a position at the commencement of the game, and that position he must relatively maintain until the final whistle has blown. This does not mean that he is not at liberty to leave it temporarily when play requires; he may adventure into the next man's territory as often as is

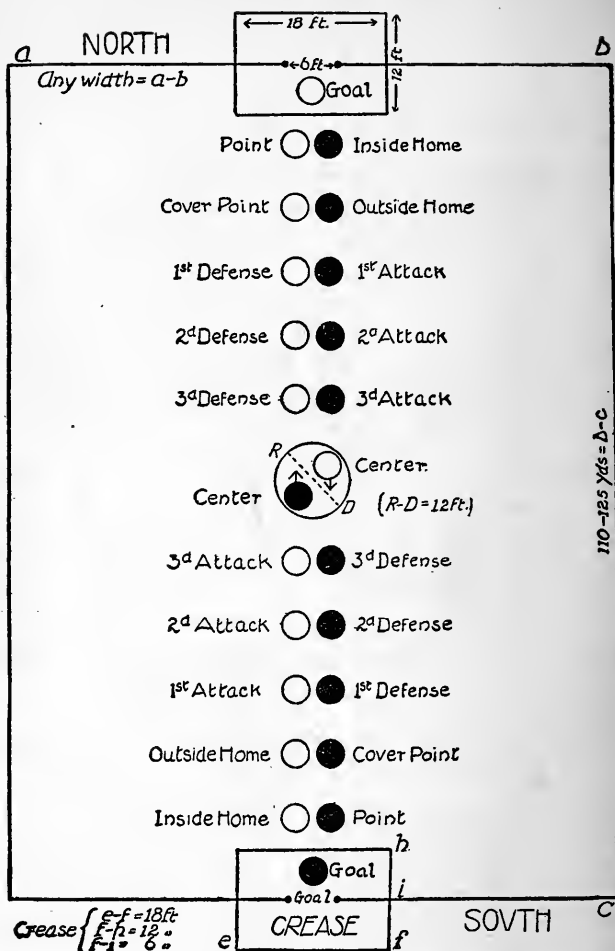


DIAGRAM M.—Lacrosse field and positions of players.

necessary to advance the ball; he may sometimes leave half the field between him and his post; but, and this is a fundamental rule, he must get back to it the instant he is free to do so; and while he is away it must be filled by the next player of his side farthest from the ball. Any one who has played basket-ball will readily understand why this is so. The accompanying diagram shows the plan of the field and the players' positions.

There is no arbitrary rule governing the placing of the players, but the system shown (Diagram M) is the most satisfactory and the one most in vogue. Particularly, should the attack line straight up and down the mid-line of the field, and so their opponents, the defense, do the same. The nearer the play approaches to being in a straight line, the better it is for the attacking side, and the harder it is for the defense to stop. This way of "lining up" allows the attack the best possible chance of uncovering at the same time lessening the distance to goal. When the attack plays out, nothing pleases the defense man more, for it is defense's duty then simply to keep the attack man out, or at least be between him and the goal.

Let us suppose that both teams have passed the inspection of the referee as to spiked shoes and lawful sticks and have taken their positions. Behind each goal is an umpire whose duty it is to decide whether a goal has been fairly taken. The opposing centers in the middle of the field prepare for the "draw." They

stoop, each facing the attacking goal, and lay the backs of their sticks flat on the ground so that the backs of the gut are against each other. The ball—made of sponge rubber and two inches in diameter—is placed between and at a signal from the referee the sticks are drawn sharply past each other, releasing the ball, and play begins. The North center is successful in the “draw” and the ball goes to the third attack, who picks it up on his stick and starts toward the South goal. But his opponent, the South third defense, is not idle. He may, by the rules, strive to obtain possession of the ball either by “stick-checking” or “shouldering”; that is, he may strike his opponent’s crosse with his own, and push it up, down or to the side, and so possibly dislodge the ball, or he may charge the opponent from the side or front with shoulder and hip. We will presume, however, that his efforts are vain, and that the North third attack still has the ball.

A try for goal from where he is would only be advisable as a last resort; he can not hope to win through the field that is crowding about him; his play, therefore, is to pass to some other of his own side who is uncovered; i. e., away from the opponent playing opposite him. In the present case that player is probably the second attack. And to him, with a quick jerk of his crosse, third attack sends the ball, over the heads or beyond the reach of the enemy and in front of second attack, who speedily picks it up on the bound or, if he has been carefully watching events, takes it in the air.

He in turn is besieged by the defense, and again the ball is passed, this time, possibly, to outside home. The latter, if successful on the catch, gets it high in the air and with a quick turn "shoots" it downward for a point near the ground between the goal-poles. But the south players are close about the goal and the try is blocked, the ball rolling to one side.

The south cover point is after it quickly, scoops it into his stick, turns and sends it far down the field. There his own second attack and the north second defense strive to get possession of it. They are running nearly even. As they approach the ball the south player closes up with the other and, when the ball is some ten feet distant, "body checks" him. That is, he swings his hip sidewise suddenly and forcibly just at the moment when the other's nearest leg is behind him. The thrust throws the north player to the side and his rear leg, swinging forward again, drops behind the other and he goes down.

South scoops the ball up, turns, dodges successfully past the first of the defense and passes the ball across to the first attack. The latter gets it, sees his chance, and, as he swings about, throws overhand at goal. Cover point reaches him too late; inside home checks the north goal's stick; point sees the danger and tries to avert it; but the throw is swift and true and the ball shoots knee-high to the left of the goal-keeper and south scores. The teams change goals and the ball is again faced in the middle of the field.

In lacrosse everything is done on the run, picking up, catching, passing, long throwing and checking, and the player must have his wits about him every moment of the time. Like ice hockey, it is a game in which a plan of action must often be formulated and begun while the body turns around—between the securing of the ball and recovery; and this may explain why the lacrosse-player takes to hockey when winter comes, and *vice versa*. There is little time for posing. With an opponent striking at your stick—and the possibility of a blow on your head, shoulder, elbow or hands—you must decide quickly what is to be done and then do it just as speedily as you know how. Lacrosse offers good training for the wits as well as for the muscles. It is not a substitute for baseball or football, but a sport wholly worthy to take its place beside them; deserving of popularity if for no other reason than that it is the one outdoor game of American inception.

CHAPTER II.

HOW TO PLAY

TRAINING.—Good physical condition is quite as essential for lacrosse as for football or any other form of athletics. Endurance and nervous force are of first importance. Tobacco and liquors should be avoided, a plain, nourishing diet should be held to and regular hours should be kept. As in football, overtraining must be guarded against; an undertrained player is of more value than one who is overtrained.

EARLY PRACTISE should begin in the fall and be kept up until cold weather comes. The fall season ought to be long enough for the novice to learn the fundamentals of the game.

FUNDAMENTALS.—The use of the stick is the first thing to learn. Become proficient at picking up the ball before you essay catching or throwing. There are two methods of picking up. These are first and all important, with both hands, and second, with one hand on the crosse. Learn with two hands first, and only use one hand in exceptional cases. A beginner should always keep two hands on his crosse.

In picking up the ball on the run carry the stick at your side (to prevent a jab into the stomach), holding

it with one hand just at the butt. As you near the ball lower the net end until it is about two inches from the ground, bring the hand holding the stick to the side of the hip and increase your speed. Stiffen the arm, lower the stick farther and scoop the ball over the end of the net by a quick forward motion of the arm. Do not slouch on the right side; it is not necessary to lower the shoulder at all; it is the speed at which the stick strikes the ball that throws the latter into the net. If the ball instead of being motionless or rolling away from you is coming toward you, slacken your speed if the pursuit is not too near. Otherwise raise the butt end of the stick to keep the ball from climbing the net and falling out over the back. Avoid reaching so far ahead of you that the ball enters the net only to leap out again at the first effort to raise it. One hand picking up enables you to use the other hand to ward off blows at your stick.

In a scrimmage always use both hands to pick up. Here it is necessary to place the net over the ball and by pulling it sharply back roll the ball toward you, then placing the edge in front of its path so that its momentum will carry it into the net. To use but one hand on the stick when doing this is practically impossible.

THROWING.—There are two ways to throw the ball, the overhand throw and the underhand throw. The overhand throw is the simplest, and should be learned first. The only way to learn is to get a stick and a ball and practise, at first against a wall or fence. In

the overhand throw the stick is held with the net to the left * of the body and above the shoulders, the left hand grasping the stick just above the end of the net and the right hand holding it at the extreme end. The ball should be against the rim about one-third way up the net when the stick is in position to throw. The throw is then made by bringing the net downward past the body to the right. The same throw is made to the left by facing that direction and taking position accordingly.

The underhand throw is made with the net below the waist, the hands placed as for the overhand throw and the body bent. At the throw the body is straightened and the stick is brought upward with a quick scooping motion across the front of the body and to the left. This throw may, of course, be also made to the right. Side throws are made with the stick held across the body and more or less parallel to the ground, and are modifications of the overhand and underhand. For short, sharp passing the side throw is usually the best. In any of these throws an essential requirement is to direct the gaze to the point where the ball is to go at

* It is immaterial over which shoulder a person learns to use his crosse. In this country the great majority use the right-handed crosse over the left shoulder. That is, the right hand is on the butt of the crosse and the left just at the end of the netting while the wood ridge is toward the side—outside to the left. It is more natural to use the right-handed stick over the right shoulder. This brings the wood ridge on the inside and thus the usefulness of the stick is increased. For an older player it is advisable to learn both ways. However, it is not advisable to use a left-handed stick in any event. A left-handed stick is never allowed in facing.

the moment the throw begins. Otherwise certainty of direction is impossible.

CATCHING.—In catching the stick may be held in a number of positions. The knack of the catch consists of “giving” with the stick so that the ball instead of meeting a motionless object, from which it would bounce back, encounters an object moving in the same general direction in which it is itself moving, and so has its flight stopped gradually.

In catching a long throw the entire net end of the stick should give to the impetus of the ball, otherwise, as has been said, the ball will bounce away from the gut. In catching short passes, however, it is only necessary to give the net a peculiar dip or twist from the wrists to accomplish the same result. For short passing the side catch is best, but naturally what the catch is to be depends on what the throw is. A side catch will answer for a ball coming anywhere between the shoulder and knee, but for a ball reaching you outside of that radius or coming directly at you from the front it will be necessary to use the stick in some other manner.

In practising passing do not stand at one end of a ten-acre field and throw the ball to a companion at the other end. A long throw is very beautiful to watch and, if done well, quite an accomplishment. But nowadays the game is won by short quick passing and long throwing enters into it but little. If you are a captain or a coach get your men together at distances from each

other of from 15 to 30 feet and let them keep the ball or balls going at good speed, catching at all elevations and angles, using the side throws, keeping the ball in the lower end of the stick, and getting it out again without a moment's hesitation.

Pass to right or left of your man and never straight in front of him and try to put the ball at a height between knee and head. "Snap" the ball from the stick quickly. Remember that when you are in a contest you will have no time to poise your body or make any other preparations for a throw. So learn quick thinking and quick acting in practise.

RUNNING—or sprinting, as it really is—forms a large part of lacrosse, and men who can start quickly and run hard are the kind that, all other things being equal, make the best players. Training in this branch of the game may be had during the winter on the gymnasium track; the arrival of spring ought to see the lacrosse candidate well supplied with speed and endurance. Too much emphasis can not be laid upon the latter requirement, and when it is considered that during an average contest lasting over one hour few players are motionless for more than a few seconds at a time the reason is apparent.

PASSING.—In the early season, before the goals are set up, a form of practise which admits of most of the plays appearing in a regular contest is that in which the candidates are divided into two sides but are not required to play any positions. The ball is given to one

side and its players are to prevent the securing of it by the opponents. This is called "tag." It teaches catching, passing, dodging and checking, and as there are no pauses such as occur in a contest after a try at goal or when the ball is being brought in and faced, it is an excellent form of practise for the chilly days of early spring. The object, if your side has the ball, is to "uncover"—that is, throw off the man playing opposite you, so that it can be safely passed to you. If you secure it it is then your duty to find another of your side uncovered and pass it in turn to him before an opponent has knocked it from your stick. Needless to say, with the ball once in your possession it is fatal to stand still; you must keep on running, guard your stick from the assaults of the opponent, dodge when necessary and all the time be on the lookout for a chance to pass. Be discreet about dodging, for by dodging you invite checks. In passing to one of your side never throw the ball directly at him, but always try to place it *ahead* of him and where he will be able to make a good catch without pausing in his run. If he is comparatively uncovered you will have time to make a slow, safe pass. If, on the other hand, he is closely followed by his opponent you will be required to pass the ball to him before the opponent gets where he can intercept it or spoil the catch. In any case if you pass the ball directly at him he will have to slow down so that it will not pass behind him, whereas if you aim ahead of him, in distance according to the pace he



"TIPPING" OR THROWING.

The ball is well up in the netting and should leave the crosse from this point; note positions of the hands.



A CATCH TO THE SIDE.

By the "giving" maneuver and twist the ball sticks in the crosse.

is going, he will be able to keep on running—perhaps even increase his speed—and catch the ball in front of him, with his stick probably out of reach of his opponent's.

Above all, avoid throwing over his head. Perhaps he will catch it, but it is more probable that he won't, for his opponent's stick will very likely be striking at his own, which, being above his head, is within easy reach. If the ball does go by him, the elevation means a long chase with the possibility of the other man getting there first. Of two evils choose the lesser and pass too low rather than too high.

Candidates for the position of goal-keeper should not neglect the general catching and passing practise. The goal should be an all-around player and should equal if not excel any other member of his team in stick work. Practise at goal tending may be had by him in a small way before the goals are set up by marking a 6-by-6 square on a wall or side of a building and defending it against the attack of another goal-keeper candidate, later changing places with him.

GOAL-SHOOTING.—Excellent practise at shooting goals may be had during the winter in the gymnasium. A goal may be set up or a square may be marked off on the wall. If possible, have a player defend the goal; if not, place an obstruction about equal to a man in height and breadth in front of it and try to shoot past it. Shooting at an undefended goal, while better than no practise at all, is not of very great value, since in a

contest you will find some ten square feet of goal-keeper moving back and forth across your target. In shooting for a goal always try first for direction and next for speed. The fastest ball in the world will not better your score unless it is aimed at the goal. Of all shots which the ingenuity of the goal-keeper is taxed to stop the most difficult is the shot made with a hard downward slash of the stick and which lands the ball just in front of the goal, 3 to 6 feet, from where it bounces in. This is a hard shot to judge, as the rebound is dependent not only on the angle at which it strikes the ground, but on inequalities of the turf and the twist in the ball itself.

One of the first lessons to learn is not to aim at the goal-keeper. The beginner finds an almost irresistible attraction in the goal-keeper, and time after time, instead of aiming at some point to the right or left of him, slams the ball directly at his breast as though a bull's-eye was to be scored by striking the letters on his shirt.

Standing directly in front of goal, you have 36 square feet at which to aim, less the size of the goal-keeper. As you draw away toward either side what may be termed the shooting surface is decreased until, when you have reached a point even with the front line of the goal, it has utterly disappeared. Hence, if you shoot from in front of the goal your chance of scoring is greater than if you try from an angle. So don't shoot from the side as long as there is a chance to get

in front. But if there is no chance to better your position, shoot anyhow. Remember that you can't score a goal until you shoot, and shoot whenever you have a *good* opportunity. Ill-judged attempts are exasperating enough, but not nearly so exasperating as wasted opportunities. The team which gets the ball within shooting distance and then loses it while indulging in a lot of unnecessary passing in the hope of making the shot absolutely certain exhibits a weak attack. There is a fundamental rule which says you shall not pass in front of your own goal; there ought to be a rule prohibiting more than two passes in front of the opponent's goal.

CHECKING.—There are two ways of preventing the securing of the ball by an opponent which are not prohibited. One is called "stick-checking" and the other "body-checking." "Stick-checking" consists of striking the opponent's stick with your own and pushing it to one side or up or down and, it may be, holding it there until one of your side has secured the ball. "Body-checking" consists of putting the opponent out of the way by striking him forcibly with your body. One way to do this is to run into him with the shoulder; another way, and the more effective, is to swing against him with your hip, choosing as the time for doing so the moment when his leg nearest you is behind him. Practise will render you capable of delivering a blow of great force with your hip. The idea of checking when the opponent's nearest leg is behind him is that the blow will throw him away from you and the rear

leg in swinging forward again will bear up behind the other and topple him over. You will not be able to do this perfectly the first time; it will require practise to learn just the moment at which to swing the hip outward.

To meet a "body-check" of this sort, run with your feet well apart and shorten your stride sufficiently to allow yourself a certain control over your body. If you are a light-weight stiffen the frame and give to the blow so that while you will be thrown out of your course you will not go down. Then recover as quickly as possible. If you are a heavy-weight throw all your resistance against the check and chance the result; it is probable that unless your opponent has as much weight as you he will go farther out of his course. If you are tall make your body flexible and yield instantly to the blow. The opponent, not finding the expected resistance, will probably go down himself. At least he will fare quite as badly as you.

The "body-check" should be used in running into an opponent who is about to throw for goal. Striking with the elbow may do the work, but the hip blow will usually prove more disconcerting and is harder to avoid. Of course the "body-check" can only be used when approaching the opponent from the side or front. However, if you are obliged to go at him from the front to spoil a shot at goal use the "stick-check." Run at him and slam the flat of your stick against his as the latter comes down from over his shoulder. Use the flat and

not the edge, as the former will hold nine times out of ten while the latter will often slip off. Moreover, you "cover" better this way. Never allow an opponent an undisturbed try for a goal.

When pursuing an opponent who has the ball don't waste your strength and retard your speed by slashing wildly at his stick with your own in the overhand fashion. Your blows may make his shoulder and elbow rather uncomfortable, but there's very little chance of their reaching his stick. Besides their futility they are liable to operate against you by throwing you out of balance. If you have ever tried to deal a hard overhand blow with a crosse while running at full speed you will appreciate this fact. Your opponent can ward off almost every blow of this sort with his arm or upper body. So let overhand checking alone when in pursuit and use the underhand. Trail your stick behind you with right or left hand some four inches from the butt until stick and arm are stretched well back. Then bring both around sharp and hard with a rising swing. This upward check will almost always reach his stick, as there is no certain way for him to guard against it, and very often it will dislodge the ball.

When your opponent is running away from you, "stick-checking" is your only course. But if the opponent is coming toward you for a try at goal and is still too far distant to shoot "body-checking" is what is called for. Don't wait for him to come up to you, but go down to him and try conclusions as far from

goal as possible. Don't waste your chance by whacking blindly at his stick with your own. If he is a good dodger he will fool you as sure as fate. He will probably hold his crosse out very invitingly in the hope that you will strike at it; if you do he will double around you before you have recovered and will be yards to the good before you have turned. Use the "body-check" against him. If you are going fast he will find it easy to feint to one side and go past on the other, so slow up when a few yards away and wait for him. Then watch and be on your toes. When he starts to go to one side of you step into his path, brace yourself and give him hip and shoulder. His momentum will put him out of your way. If instead of giving you this chance he starts to circle, keep alongside, running warily and only fast enough to keep him moving away from the center line of the field. Never mind where he puts his stick nor how tempting it may look; *play for the man and not the stick*. Watch him every instant and at the first chance to "body-check" him, go in hard.

POSITIONS.—A captain may place his men on a lacrosse field in any fashion that pleases his fancy, but the arrangement shown in the accompanying diagram is most in favor in this country. The duties of the various members of a team are what their locations on the field would indicate.

GOAL-KEEPER should be an excellent all-around player and one whose stick-work is of the cleverest. He should be an adept at stopping balls with stick or

body; the really fine goal appears to know by instinct where the ball is coming and the way in which he throws up his crosse, thrusts out a leg or turns the body to meet it is precision itself. He must be able to pick out the man of his side who will use the ball most advantageously and send it to him, and he must do this in the twinkling of an eye. Infrequently he will be required to go out and spoil a shot, and so must be a good checker.

POINT AND COVER POINT have for first duties the checking of the attack of inside home and outside home. Close shots at goal are their especial prey, but they must at all times be ready to aid the goal-keeper and should be hard, strong players and able to throw well under all sorts of conditions.

THE DEFENSES have a wider range of action than the points. Primarily they must check their men, the opposing attacks, but beside that duty they must play the part of advance guards, be ready to repel the incursions of the center and quick to fall back and form into a defensive cordon about the goal. First defense should not adventure so far from home as the other two when he has the ball, nor, as a general thing, should he be expected to go far to the sides of the field in case of balls falling there; this duty is better attended to by second and third defense.

CENTER's first duty is to feed the attack. Beyond that he has a larger range than any other man on the team and must make himself generally useful as often

as he can afford to uncover his opponent. Above all, he should be second to none as an accurate thrower and ought to excel all others as a sure catcher.

THE ATTACKS should be hard players, fast runners and dodgers and good goal-shooters. And they must have a little more than their share of endurance. With the ball once among them they should set a fast pace, pass quickly and shoot when the opportunity presents itself.

OUTSIDE and INSIDE HOME are supposed to be, first of all, goal-shooters, and for this reason they ought to excel in this accomplishment. But frequently their duty will consist of checking the points while an attack tries for goal. But whether shooting or checking, their work should be fast and their attack fierce; the home positions are no places for slow or overcautious players.

TEAM-PLAY is what counts in lacrosse as in football or baseball. The young player when starting out should disabuse his mind of the idea that what is required of him are "grand-stand" plays such as long runs and long throws. He is part of a machine and must keep his place. Each player on a lacrosse team may be likened to a cog-wheel which, revolving in its place, meshes into other wheels on either side of it. Just so long as the twelve cog-wheels maintain their positions they must revolve in unison; but the disarrangement of one of them will stop the others.

It is scarcely possible to lay too much emphasis on the necessity for every player keeping the position as-

signed to him at the beginning of a period of play. But by "keeping the position" is not meant that the player must stand in the same spot all the time or even move in a space a few yards in area. Each player is allowed a movement up and down the field practically equal to the distance of the nearest players of his team on either side of him. That is, third attack, for instance, may advance as far as the position of second attack and retreat as far as the position of center. It is the *relative* position that each man should preserve, for in every game the entire team save the goal-keeper moves up or down the field. But once having taken part in any disarrangement of the field regain your own position as soon as may be; go back to it on the run and don't loiter back; there is no telling how soon you may be needed just there.

The effort must always be toward having as many players as possible where the ball is; numbers represent strength. On the attack with the ball near the opponent's goal, the entire team save the goal-keeper and close defense should move toward the scene of operations, each man advancing one position. In the same way, on the defense, with the ball near your own goal, the team as a whole retreats toward the point of the enemy's attack, each player, as before, moving to the next player's position. The advantages of this can be readily seen. For instance, in the first case, on the attack, you have massed your men closer together in the region of the opponent's goal, and so can make your

passes shorter and more rapid. In the second case, on defense, if the try at goal fails and the ball goes back of goal you can spare a fielder to assist the goal-keeper or point in gaining possession of it.

BEFORE THE GAME.—Unlike football or baseball, lacrosse is not a game which may be planned beforehand save as to a general system. No matter what sort of an attack was mapped out when play started, one minute later all plans would be worse than useless. In lacrosse the situation changes every instant, and it is for this reason that cool, quick judgment is the player's most valuable asset. But what the captain can do is to decide how certain emergencies shall be met when they arise and what players shall do in certain cases. For instance, problems like the following can and should be solved before the game and drilled into the players:

On defense; a shot at goal has failed and the ball has gone out. Inside home and goal-keeper have gone after it. Where is point's position? Where is cover-point's position?

On defense; second attack gets the ball on the side of field, eludes second defense and runs in. Who goes out to meet him? What is first defense's play? If cover-point meets second attack who covers his man?

On defense; outside home has failed at goal and goal-keeper has swept the ball toward the corner of the field. Inside home goes after it. Where is cover-point's position? Where is first attack's position?



GOAL WATCHING PLAY COMING IN FROM BEHIND THE
GOAL-LINE.



FACING OFF.

Backs of both crosses are on the ground with the ball between.
The centers are on their feet ready for a spurt after "play."

There are many other situations occurring in an average game which may be provided for previously. If the men have been taught what to do in such contingencies they will not only know instantly what their own play is but what the other men are doing and where they are placed. The result will be precision of movement and strength of position.

POINTS.—There are one or two general points which it is well to know and remember. When an attack at goal is made attack players must be careful not to crowd too close to the goal and so block their own efforts. Overeagerness very often causes players to get in the way of the shots of their own side. Wait until the shot has been made and then rush for the goal. If goal-keeper stops the throw with his body the ball is liable to drop right in front of goal, and if the attack is thick thereabouts it will not be a difficult thing to force it in either by the stick or by kicking.

It also frequently happens that an attacking player can find none of his side uncovered, and so is unable to pass. In that case he should toss the ball high so that it will land just in front of goal. Then if the attack closes in and strives to slash it through as it comes down or kick it through afterward a score is likely to result.

Bear in mind that the man who has just passed the ball to you is the one of all most likely to be uncovered. Very frequently you will be able to pass back to him for a long gain, and sometimes you will be able to do this not once only, but several times in succession.

In an attack at goal it should be inside home's duty to check point's stick the moment the throw is made and then instantly give his attention to goal-keeper.

Don't talk to your opponent. Keep your mind on the game every minute.

Don't come out on the field looking like a tramp. Wear clean togs and see that they are in good repair. Look well to shoes and stick.

Always know where you are. In the pauses of the game locate yourself with relation to the goal and your nearest neighbors. When the ball is coming to you size up the situation while the ball is on the way so that as soon as it is in your crosse you can light out.

Keep cool, use your brain all the time and watch the ball.

Finally, play hard, but don't "slug." Play for the love of the game and not merely to win. In short, play like a gentleman.

LACROSSE RECORDS

GAMES OF 1903.

SWARTHMORE *beat* Hobart 9-1; College of the City of New York 11-1; Stevens 9-5; Columbia 14-1; Lehigh 10-6; *tied* Pennsylvania; *lost* to Crescent A. C. 4-10; Johns Hopkins 4-6.

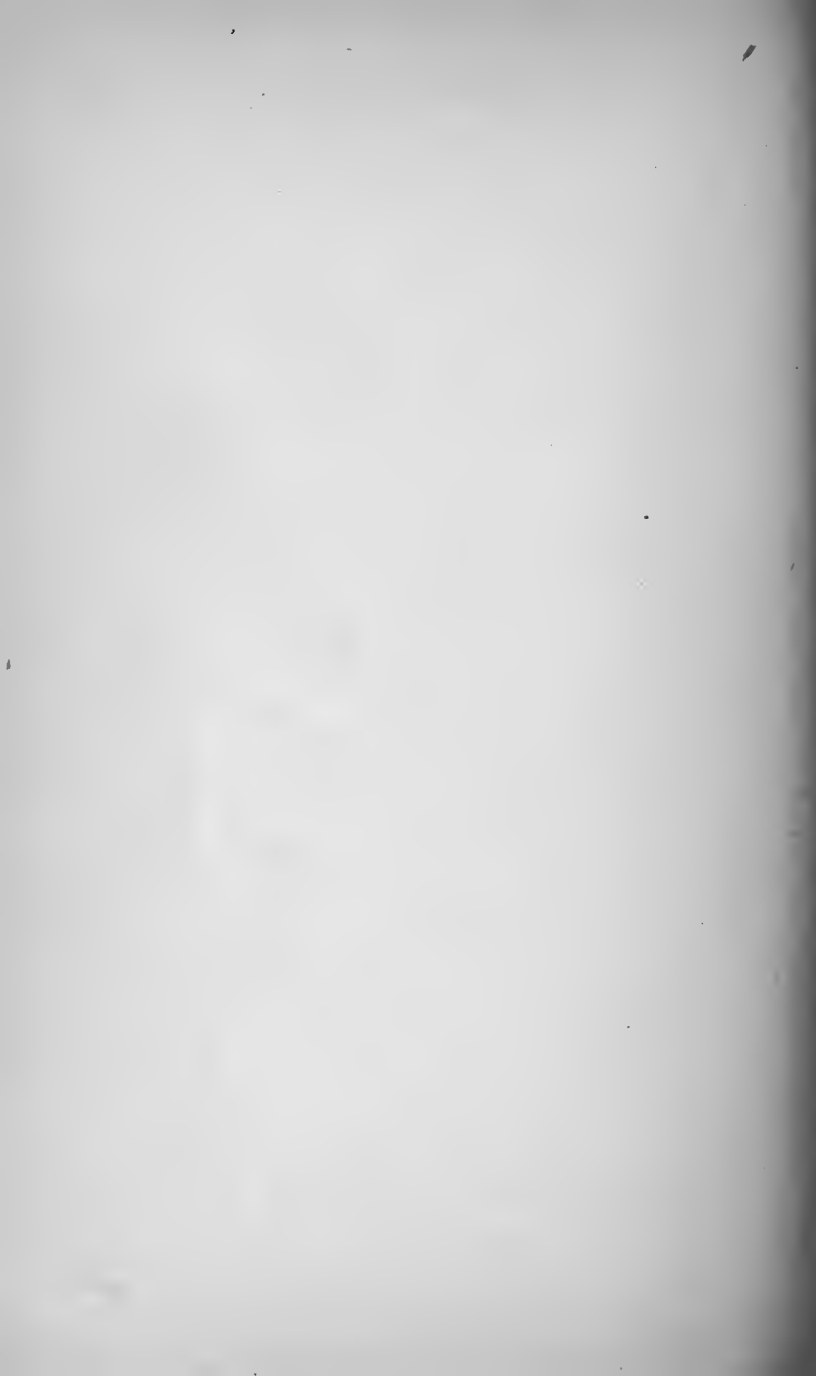
UNIVERSITY OF PENNSYLVANIA *beat* College of the City of New York 5-1, 7-3; Harvard 5-1; *tied* Swarthmore 1-1; Hobart 2-2; *lost* to Lehigh 4-5; Cornell 3-4; Columbia 2-3; Toronto 3-9; Oxford-Cambridge 1-7.

JOHNS HOPKINS *beat* Pennsylvania 6-0 (forfeited); Hobart 8-1; All-Baltimore 7-0; Stevens 13-1; Lehigh 17-4; Swarthmore 6-4; *lost* to Crescent A. C. 3-10; Toronto 6-9.

HARVARD *beat* College of the City of New York 6-2; *lost* to Pennsylvania 1-5; Crescent A. C. 3-12; Cornell 3-4; Hobart 1-4; Oxford-Cambridge 5-7.

COLUMBIA *beat* G. N. Y. T. A. A. 4-0; College of the City of New York 5-2; Pennsylvania 3-2; Cornell 5-1; *lost* to Crescent A. C. 2-7; Swarthmore 1-14; Stevens 1-5.

ADDITIONAL RECORDS.



RULES OF LACROSSE

OF THE

INTERCOLLEGIATE LACROSSE ASSOCIATION

(Adopted November 30, 1901)

RULE 1

PLAYERS

SECTION 1.—Each player must be a student of some department of his university or college, and must have attended, for three months previous to the match, courses to the extent of at least five hours a week, and have been regularly examined in such course or courses. No player shall play in the games of the Intercollegiate Lacrosse Association of the United States for more than a total of four years.

SEC. 2.—No player who shall have represented any collegiate institution or institutions for a total of four years shall be allowed to play in the games of the Intercollegiate Lacrosse Association of the United States.

SEC. 3.—At least ten days before each match the contesting teams shall furnish each other with a list of the men from which their team is to be selected.

SEC. 4.—No player shall be allowed to wear metal stripped, heeled or spiked shoes, nor shall there be any projecting metal on the shoes, and any player attempting to evade this law shall be immediately ruled out of the match.

RULE 2

TEAMS

SECTION 1.—Twelve players shall constitute a full team.

SEC. 2.—If, however, one team is unavoidably short of men, the other team shall, if it see fit, drop men until the number of

the two teams is equal. But no match shall count in which both sides begin the game with less than nine men each.

SEC. 3.—Should any player be compelled to leave the field during the match through illness or injury, the opponents shall drop a player to equalize the sides.

SEC. 4.—The players on each side shall be designated as follows:

	Goal-Keeper.
Inside Home.....	Point
Outside Home.....	Cover-Point
First Attack.....	First Defense
Second Attack.....	Second Defense
Third Attack.....	Third Defense
Center	Center
Third Defense.....	Third Attack
Second Defense.....	Second Attack
First Defense.....	First Attack
Cover-Point.....	Outside Home
Point.....	Inside Home
Goal-Keeper.	

RULE 3

CAPTAINS

SECTION 1.—The captain of each side must be one of the players. The captain shall toss for choice of goals, and shall report any infringement of the rules during a match to the referee.

RULE 4

GOALS

SECTION 1.—Each goal shall consist of two poles six feet apart, and six feet above the level of the ground, joined by a right top cross-bar. The poles must be fitted with a pyramid-shaped netting of not more than one-half inch mesh, which pyramid shall extend and be fastened to a stake in the ground at a point seven (7) feet back of the center of the goal, and said netting shall

be so made as to prevent the passage of the ball put through the goal from the front, and the bottom of the netting must be held close to the ground with pegs or staples or bars.. They shall be placed at least 110 yards, and if the ground will permit, 125 yards from each other. In matches, they must be furnished by the home club.

SEC. 2.—The goal shall be a marked line, twelve by eighteen feet, and the goal-posts shall be placed six feet from the front and back lines and six feet from the side lines.

RULE 5

THE CROSSE

SECTION 1.—The crosse may be of any length to suit the player; woven with catgut, which must not be bagged. (Catgut is intended to mean rawhide gut or clock-string, not cord or soft leather). The netting must be flat when the ball is not on it. In its widest part the crosse shall not exceed one foot. A string must be brought through a hole at the side of the tip at the turn, to prevent the point of the stick catching an opponent's crosse. A leading string resting upon the top of the stick may be used, but must not be fastened so as to form a pocket lower down the stick than the end of the length strings. A bumper or stop can not be used.

SEC. 2.—No kind of metal, either in wire or sheet, nor screws or nails, shall be allowed upon the crosse. Splices must be made either with string or gut.

RULE 6

THE BALL

SECTION 1.—The ball to be used in all match games must be of sponge rubber, and marked "Regulation Lacrosse Ball," and weigh about five and three-quarter ounces. In each match a new ball, furnished by the home team, must be used. It shall become the property of the winning team.

RULE 7

OFFICIALS

SECTION 1.—The referees who are to act in the games on the official schedule shall be agreed upon at the annual convention, and alternates shall be chosen at the same time. Such referees and alternates shall be men of recognized ability; but shall not be students, alumni or partisans to the college contesting.

SEC. 2.—The umpires who are to act in the games on the official schedule shall be agreed upon either at the annual convention, or by the referee and captains before the game.

SEC. 3.—Two timekeepers shall be appointed, one by each captain, before the beginning of the match. Their duties to be to keep an accurate account of the time of the match, deducting time for stoppages in the actual play, resulting from injuries to players, ball out of bounds, or disputes.

SEC. 4.—In case principals and alternates fail to appear, the captains of the contesting teams shall settle upon the referee and umpires.

SEC. 5.—In the settlement of any dispute, whether by the umpires or the referee, it must be distinctly understood that the captains alone have the right to speak on behalf of their respective clubs, and any propositions or facts that any player may wish brought before the referee must come through the captain.

RULE 8

REFEREE

SECTION 1.—Before play the referee shall see that the field is cleared of all obstacles which may in any way interfere with the players.

SEC. 2.—Before the match begins the referee shall draw the players up in line and see that the regulations respecting the ball, crosses and shoes are complied with. Disputed points whereon the captains disagree shall be left to his decision. He shall have the power to suspend, at any time during the match, for not less than five, nor more than fifteen minutes, any player persisting

in infringing upon these rules, the game to go on during such suspension. He shall immediately call "time" when "foul" has been claimed by either captain or the player by him appointed, or when a goal has been taken. He shall also have power to call "time" when he observes a "foul" and to enforce the penalty.

SEC. 3.—The jurisdiction of the referee shall not extend beyond the day for which he is appointed, and he shall not decide in any matter involving the continuance of a match beyond the day it is played. The referee must be on the ground at the commencement of each match and after "fouls" and "balls out of bounds" he shall see that the ball is properly put in play, and shall call "play" when both sides are ready. He shall not express an opinion until he has taken the evidence on both sides; after taking the evidence his decision in all cases must be final. Any side rejecting his decision by refusing to continue the match shall be declared the losers.

RULE 9

UMPIRES

SECTION 1.—There must be one umpire at each goal. He shall stand behind the net while the ball is in play. He shall decide whether or not the ball has fairly passed through the goal, and his decision shall be final. If a goal be taken he shall raise his hand above his head and call "goal." The umpires must each be assigned to a goal before the captains toss for sides; such goal to be kept through the entire match. They must see that the rules respecting goals are adhered to and shall be judges of all fouls committed within the crease.

RULE 10

THE GAME

SECTION 1.—A match shall consist of two thirty-minute halves, unless otherwise decided by *both* captains, with an intermission of ten minutes between the halves, and the side scoring the

greater number of goals shall be declared the winner. Time to be taken out whenever time is called. In event of a tie, playing shall be continued after an intermission of fifteen minutes, for fifteen minutes, and the side having scored the greater number of goals at the end of this time shall be declared the winner. In the event of a tie at the end of this time, the captains shall decide whether the game be postponed, or that it remain a tie.

SEC. 2.—A goal shall be scored when in the opinion of the umpire the ball has been fairly passed between the posts and below the level of their tops by any other method than that of being carried through in the stick of an attacking player. Should the ball be accidentally put through a goal by one of the players defending it, it shall count a goal for the side attacking that goal. Should it be put through by any one not actually a player, it shall not count. (In that event the ball must be put in play at center field.)

SEC. 3.—If the ball goes out of bounds the referee shall call "time." The ball is then to be brought back to the place where it left bounds and faced ten yards within bounds by the two nearest opponents, the other players retaining their positions from that moment when time was called. The captains must settle the bounds before the match begins. Should the ball catch in the netting the crosse must immediately be struck on the ground to dislodge it.

SEC. 4.—In case the ball should hit the umpire, time must be called, and the ball shall then be put in play at a distance of ten (10) yards behind the goal.

SEC. 5.—In the event of a goal pole being knocked down during a match, and the ball put through what would be the goal if the pole were standing, it should count a goal for the attacking side; such cases to be decided as usual by the umpire.

SEC. 6.—The ball must not be touched with the hand save in Sections 7 and 8, Rule 10.

SEC. 7.—The goal-keeper, while defending goal within the goal crease, may knock the ball away with his hand, or block it in any manner with his crosse or body.

SEC. 8.—Should the ball lodge in a place inaccessible to the

crosse, it may be taken out with the hand and the player picking it up must face for it ten feet within playing limits with his nearest opponent. In case either used a left-handed crosse the referee shall toss up the ball between them, and call play when both are ready.

SEC. 9.—At the beginning of each half the ball shall be faced midway between the goals. The referee shall ascertain if both captains are ready, and place the ball on the ground between the crosses of the two center players. He shall then withdraw at least ten feet and call "play." The crosses must be placed back to back and overlap about two-thirds the length of the netting, and each be drawn straight back toward the player holding it when the referee calls "play."

SEC. 10.—No player shall be allowed within six feet of those facing the ball until it is in play.

SEC. 11.—After each goal the players *must change goals* and the ball again be put in play by facing it in the center of the field.

SEC. 12.—Only the captain of either side, and one other player by him appointed, shall have the right to claim a "foul," and the referee shall not stop the game when "foul" is claimed by any one else.

SEC. 13.—When a "foul" has been claimed, the referee shall call "time" by blowing a whistle, after which the ball must not be touched by either club, nor shall the players move from the positions in which they happened to be at the moment, until the referee has called "play." If a player should be in possession of the ball when "time" has been called, he must drop it on the ground. If the ball shall enter goal after "time" has been called, it shall not count. If a goal is made after the play on which a "foul" is claimed, and before "time" is called, that goal shall count if the foul claimed is not allowed.

SEC. 14.—In case of rain, either before or during the match, the game shall be postponed or delayed only by consent of both captains.

SEC. 15.—If postponed and resumed on the same day, there shall be no change of players on either side.

SEC. 16.—When a foul is allowed by the referee, the player fouled shall be allowed a “free throw or free run” with the ball from the place where the foul occurred. For this purpose all players within ten feet of said player shall move away to that distance, all others retaining their positions. But if a “foul” is allowed within twenty yards of a goal, the man fouled shall be granted a “free throw or free run” on moving away to that distance from the goal.

SEC. 17.—If a “foul” is claimed and time called, and the “foul” then not allowed, the player accused of fouling shall be granted a “free throw or free run” under the conditions above mentioned.

RULE 11

FOULS

The following shall constitute fouls and shall be punished as such by the referee:

SECTION 1.—No player shall grasp an opponent's crosse with his hands, hold it with his arms, or between his legs; nor shall any player, six feet from the ball, hold his opponent's crosse with his crosse in any way to keep him from the ball until another player reaches it.

SEC. 2.—No player shall, with his crosse or otherwise, hold, purposely strike or trip another, nor push with the hand, nor wrestle with the legs so as to throw an opponent.

SEC. 3.—No player shall throw his crosse at a player or at the ball under any circumstances.

SEC. 4.—No player shall hold the ball in his crosse with his hand or person.

SEC. 5.—No player shall charge into another after he has thrown the ball.

SEC. 6.—The crosse or square check, which consists of one player charging into another with both hands on the crosse so as to make the crosse strike the body of his opponent, is strictly forbidden.

SEC. 7.—No player shall interfere in any way with another who is in pursuit of an opponent in possession of the ball.

SEC. 8.—“Shouldering” is allowed only when the players are within six feet of the ball, and then from the front and side only. No player shall under any circumstances run into or “shoulder” an opponent from behind.

SEC. 9.—No attacking player shall be allowed within the crease unless the ball is within the crease.

SEC. 10.—No player shall check the goal-keeper from behind the poles while the latter is in position.

RULE 12

SECTION 1.—Any amendment or alteration proposed to be made in any part of these rules shall be made only at the annual convention of the Association, and by two-thirds vote of the members present.

SEC. 2.—These rules take effect from the date of their adoption.



ICE HOCKEY



CHAPTER I

THE GAME

ORIGIN.—Like most other games ice hockey can be traced back to the ancient Romans, who, with a sphere filled with feathers and a bent stick played the game in its original form. The more recent precursors of ice hockey, however, were the Scottish game of shinty, the Irish hurley and the English shinny or hockey. All of these games were played on the ground, but from hitting a knob or block of wood about over a frozen field to doing the same thing on a sheet of ice was a natural step. Even then, however, the pastime had but a general resemblance to the present game; the number of contestants was practically unlimited and the rules were few; in fact, just so long as the players “shinnied on their own side” and didn’t hit one another over the head with malice aforethought there was no necessity for bothering about rules.

The fostering and development of the game on this side of the water was principally done in Canada. As a result it has a strong resemblance to that other excellent northern sport, lacrosse. About 1880 two ice hockey clubs were formed in Montreal. These were the McGill

University and Victoria Clubs, and to them most of the credit for the perfecting of the game is due. Rules were adopted and in 1884 half a dozen teams were playing the game. Three years later the Amateur Hockey Association of Canada came into existence with five clubs registered: the Victorias, Montreals, Crystals, Quebecs, and Ottawas. From eastern to western Canada the sport traveled, and in the Province of Ontario the Ontario Hockey Association was formed in 1890 with a membership of nine clubs. And that was only the beginning of things; to-day the city of Toronto alone holds fifteen hockey clubs, while every good-sized town in Ontario supports at least one team. Manitoba took up the game in course of time, and at present her players are equal in skill to those of Quebec Province.

The honor of having introduced the game into the United States is variously conferred on representatives of Brown, Johns Hopkins, Harvard, Yale and Cornell Universities. In the winter of 1894-'95 a team made up of players from several of the colleges visited Canada and played a series of games with Quebec and Ontario clubs. They returned with a large number of defeats to their credit, but had gained valuable experience and much enthusiasm. From this tentative organization were evolved the leading clubs of the United States. Of these the St. Nicholas Skating Club of New York was the first, and was followed very soon after by the New York Hockey Club. Brooklyn and Baltimore established clubs, and in the latter city especially hockey

flourished for several seasons. The colleges took up the sport in earnest, Brown, Yale, Columbia and Pennsylvania being followed closely by Harvard, Princeton, Michigan and Cornell. As usual the schools followed the lead of the colleges, and to-day ice hockey is at last firmly established in favor.

THE FIRST REQUISITE is a clear sheet of ice not less than 112 feet long by 58 feet wide. A boundary of boards is necessary, since caroming the puck against the sides of the rink is an important feature of the game. This barrier may be anywhere from 6 to 36 inches high, the latter height being preferable. Goals are placed at least 10 feet from the edge of the ice in the center of either end of the rink and are 6 feet wide and 4 feet high. A pair of poles will answer for practise, but a goal similar to a lacrosse goal, made of iron piping with a net, is required by the American Amateur Hockey League rules. These goals cost \$15 a pair. The implements consist of a vulcanized rubber disk 1 inch thick and 3 inches in diameter called a "puck," and sticks, varying in length according to their use by forward or defense players, terminating in a blade set at an angle of about 45 degrees with the haft. The average length of a stick used by a forward is 4 feet from heel to top of haft. The blade is usually $2\frac{1}{2}$ inches at the widest part and must not exceed 3 inches. The better sticks are made of rock elm and cost from 50 to 75 cents each. Pucks cost 50 cents each. A skate especially designed for hockey has an absolutely straight blade, especially

adapted for quick starting, stopping and turning, and is screwed into the heel and sole of the shoe, additional security being obtained by straps.

THE OBJECT OF THE GAME is to pass the puck between the opponent's goal-posts, thus securing a goal. The rules, a not overbrilliant production, use the word game to signify a goal scored. This is a term borrowed from the Canadians and is decidedly misleading, since in this country a game is an entire contest, the English word match being seldom employed. In this article a goal scored will be called a goal. The game consists of halves of twenty minutes each divided by a ten-minute intermission, the teams changing goals at the beginning of the second half. The side having the most goals to its credit at the end of the game is declared the winner. In case of a tie a third period of play is begun and is continued until one side has secured the deciding goal. The puck is not struck with the stick, but is advanced by being pushed forward and from side to side, which is called "dribbling," by being slid and by being "lifted" with the blade of the stick and sent through the air. The rules are few and simple. The puck may be advanced in any way with the stick, but may not be carried with the hand nor thrown. The stick may not be lifted above the shoulder save after having "lifted" the puck. Penalties are provided for foul tactics and for off-side playing. Off-side play occurs when, after a player touches the puck, any player of the same side, who at the moment of touching was nearer the opponent's goal-line, touches



PASSING THE PUCK.

the puck himself or interferes with an opponent, until the opposing side has played the puck.

THE PLAYERS of a team are seven in number and are known as the goal-tender, the point, the cover-point, right end, right center, left center, and left end. The first three players are known as the defense, the last four as the forward. The relative positions of the players are as shown in Diagram N.

APPAREL is a matter of some importance. The possession of a stick and a pair of skates does not imply preparedness for hockey. The usual and best costume consists of a full-fashioned worsted jersey with full-length sleeves and medium high collar, knee pants of gray or khaki-colored canvas with hips and knees well padded and having cane strips at the thighs, warm woolen stockings, shoes at once strong, warm and comfortable, a knitted cap, and a woolen sweater for use when not playing or until warmed up. The defense players require clothing slightly different from that of the forwards. Goal-tender, for instance, should be more warmly dressed than the more active forwards. His trousers may be of moleskin instead of canvas with good effect, while as a general thing a medium-weight sweater will be worn by him throughout the game. Goal's trousers should be extra well padded and should have cane strips liberally distributed at the thighs. Forwards, on the other hand, are best appareled when their trousers are rather loose, allowing absolute ease of movement, and are only slightly padded at hips and knees. The rapid, continued

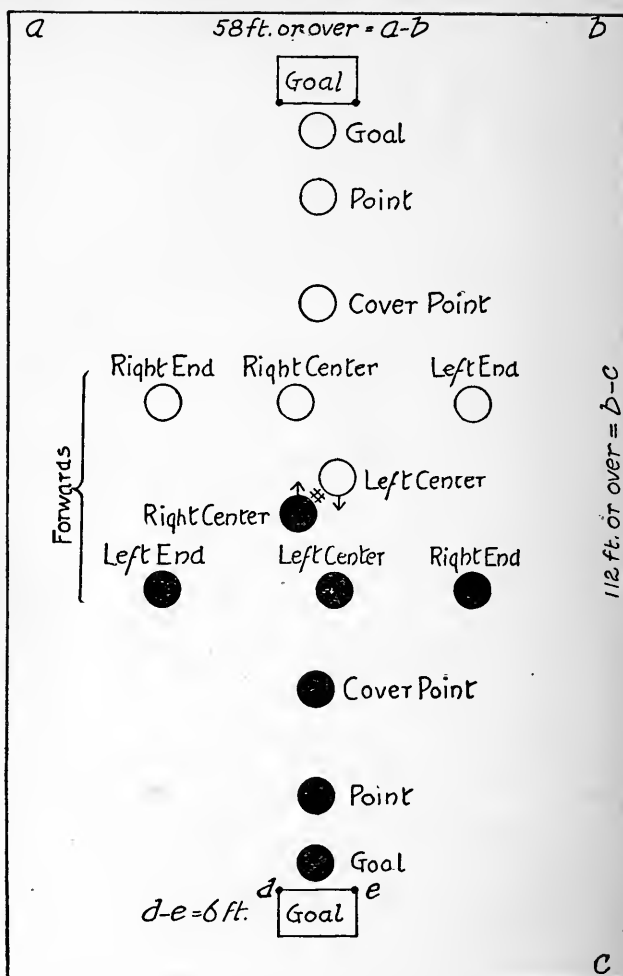


DIAGRAM N.—Hockey rink and positions of players.

playing required of them precludes the necessity for sweaters during the game. Leg-guards are required by the goal-tender and shin-guards by point and cover-point. A curled-hair pad at either elbow, stitched on to each player's jersey, is advisable as a preventive against bruises.

IN SELECTING A STICK look out for flaws and knots. A proper stick is of Canadian rock elm, free from inequalities, rather light in weight for its size, with close, hard grain running straight with the haft and curving with the blade. Such a stick will stand ordinary blows and will not fray at the sole where it comes in contact with the ice. A heavy-feeling stick is usually one which is not thoroughly dried and seasoned and which may warp when subjected to sudden extremes of heat and cold.

CHAPTER II

HOW TO PLAY

QUALIFICATIONS.—Naturally the first qualification necessary for a hockey player is the ability to skate well. A player without much speed may perhaps capture the position of goal-tender or point, for speed there is not so necessary as a perfect command of the body. To skate down the rink at extraordinary speed will accomplish little if the slightest collision throws you on your back. Ability to keep the balance, therefore, is of prime importance. Keeping the balance means, among other things, skating low—that is, with the weight as near the ice as possible. After you have learned to skate low learn to skate hard. In case you are body checked it is just as well for the other man to go down instead of you. If you skate hard he will. If you don't it will be you who will scrape the ice.

With the ability to keep the feet under the ordinary circumstances of a fast game will come the ability to dodge and handle the stick so that, at least, you will not fall over it. When you have taken part in a game or two and have watched a few more you will have learned what is required of you in the way of skating; after that practise is all that is necessary. Don't start out with the

idea of being a "fancy" player; leaping over an opponent's stick is pretty to look at once in a while and is a useful accomplishment, but, generally speaking, "it butters no parsnips." Set out with the intention of becoming a "common or garden variety" of player, one who will skate hard and fast, keep his feet under him and be close up to the puck all the time. If you do that you will stand an excellent show of playing all around the "fancy" man.

The trick skater makes an undesirable candidate for the hockey team for the reason that he has sacrificed the qualities necessary in a hockey player—speed, dash and force—for grace and intricacy of movement. "Backward rolls" and "grapevines" have little practical use of the hockey rink. In the same way the speed skater *per se*, while more promising than the trick skater, is not the best of material. In short, what is wanted when it comes to building a hockey team is a number of plain, every-day skaters, fellows who can go hard and fast without much attention to style, who can start like a flash and stop as quickly, who can dodge like a rabbit and who can fall on the back of their heads and be up smiling before the referee's watch has ticked twice.

The usual playing time is forty minutes. This means that the players—more especially the forwards—must have good lungs and hearts; endurance is half the game. The average college hockey team contains at least one or two lacrosse players, for among similarities the games are alike in that they each test the endurance of the players

very heavily, and a man who has played during the spring and fall on the lacrosse field gravitates quite naturally to the hockey rink. The hockey player, then, should be strong physically and constitutionally. A forward is put to such extremes of exertion at times that only a perfect condition of health can stand the strain without injury.

There are mental requirements as well as physical. A player without a little more than his share of pluck is a poor player no matter how well he may skate, dodge and handle his stick. And pluck contains a seasoning of recklessness, for the calculating man who strives to make his plays without putting his legs and arms in danger is better fitted for lawn bowls. But recklessness does not necessarily imply any lack of coolness; it is the cool recklessness that counts. The player who has a clear idea of what he is going to do and how he intends to do it, and who then dives into the *mêlée* at the risk of hard knocks and does it, is the player who makes goals for his team and a name for himself. And, just as in football or any other game, it is not the daring player who gets hurt the oftenest, but the careful chap who tries to save his body. Daring denotes confidence, and confidence wins. But there is a difference between confidence and overconfidence. One wins games and the other loses them. A confident team is one to back, an overconfident team is one to anticipate defeat for.

TRAINING for hockey should begin at the commencement of the season—usually about the first week in De-

cember—with a general course of gymnastics, since as the game calls into play practically every muscle of the body a preliminary conditioning of them is advantageous. Aside from the heavy weights every appliance contained in the gymnasium may be used, paying, however, special attention to such exercises as will develop the muscles of the arms, back and chest. The lower limbs and the stomach muscles need not be neglected indoors, but they will very soon be brought into condition by the early days of practise. The punching-bag offers a valuable means of developing the lungs.

DIET.—A plain, wholesome and well-cooked diet is necessary to success. Pastry is, of course, barred. If possible the team and substitutes should go to a training table at least a week before the first game of the season.

PRACTISE.—As in everything else, practise is what counts. There can not be too much of it just so long as there is no overexertion. Practise should begin in early December, on the ice if there is any, on the gymnasium floor if not. The coach can give a deal of instruction in stick-handling, blocking-off and team-play in the gymnasium. He can also set up one or more goals and give valuable practise in shooting and guarding. From the time the team first assembles until the season ends there should be daily practise at shooting goals, either on the ice or in the gymnasium; and this aside from whatever other general practise is possible.

STICK-HANDLING.—It is not possible to teach stick-handling in this article. It comes with practise—in fact,

teaches itself. But there is one law which may be given here and which is the basis of successful stick work: hold the stick in both hands. Grasp it at the end of the haft with the right hand and put the left hand as low down as experiment shows to be advisable; where the left hand is to go depends upon the player's reach. With both hands upon it the stick is a help in skating; with one hand on it it is a hindrance. Held in the proper way it will aid the player in maintaining his balance and in dodging. With both hands upon it it can not get behind the player, and consequently is always in position to check stick, to body check, to resist checks, to stop the puck and to shoot. Once in a while it becomes necessary to take the left hand from the haft. In this case if the right is at the end of the haft the stick is still under excellent control. Stick-handling is one of the essentials of hockey and proficiency in it comes with practise.

THE FACE begins the game. This play is similar to the method by which the ball is put in play in lacrosse. The puck is placed in the center of the rink between the sticks of two opposing forwards, usually center men, and at the whistle of the referee each tries to get possession of it and pass it back to a player of his own side.* The side gaining the disk then begins its charge down the ice,

* In the Canadian game three forwards constitute the line, while a fourth man, known as the "rover," takes a position generally behind it, keeping a sharp watch for pucks getting by the line, and, in short, "backing up." The practise of playing one man back during the rush is sometimes followed in this country, but the name of "rover" is never applied to him.

that is, the four forwards spread across the rink in a practically straight line and advance the puck toward the opponent's goal by dribbling and passing, while the cover-point moves up to a position near the center of the field. Goal-tend, of course, does not leave his position, nor does point.

In the forwards' advance they first meet repulse from the opposing forwards. These once evaded by skilful dodging and passing only the opposing defense remains between them and the goal, although the opposing forwards are of course harassing them from the rear. The opposing cover-point is the first of the defense to evade. A pass from a center to an end will usually accomplish this, and cover is left behind and is for the moment out of the running. Next point confronts them. If point can be evaded and the shoot at goal made before the forwards and cover-point can rally to the defense the chance of scoring is bright. Naturally the thing to do is to deceive point by seeming to attack from one part of the line and then, by a quick pass, attack from another. For instance, if right end has the puck he skates in near goal and as point starts to check him he passes to right center, who shoots. By this time the entire opposing team has rallied to the defense of their goal and if the shoot is unsuccessful close fighting ensues until the goal is won or the opponent captures the puck and plays it out of danger.

TEAM-PLAY is essential to success in hockey as in football. For one forward to take the puck down the

rink himself and shoot the goal is seldom possible. It is the clever passing from one forward to another that nets points. The theory is that of the uncovered man as applied in lacrosse and basket-ball. The forward who is attacked, to avoid losing the puck for his side, sacrifices individual play for team-play and passes the disk to another man of his side who is "uncovered." In this way one opponent after another is thrown off and a chance at goal secured. In order to make this combination or team-play successful it is necessary that each player should keep his relative position, as in lacrosse. That is, a center should not get out on to the sides of the rink and an end player should not be drawn into the center. There are times, however—exceptions proving the rule—when in a scrimmage near the opponent's goal this rule must of necessity be disregarded. But in such a case each player should return to his position as soon as possible. In the advance of the forwards it is necessary for each one to have his place and keep it. It is not always possible—often far from advisable—for a forward who is attacked to look across the rink to make sure that a certain player is there before passing the puck. It is necessary for him to act quickly, and he sends the puck where the other player ought to be. If the latter is playing the game well and good, but if he is straggling toward the next position or has fallen to the rear the advance is probably wasted and the opponent has the ball. In the same way, cover-point, although he may at times play the part of a forward by having his position

taken for the moment by another player, has a place relative to the sides of the rink, his own goal and the locality of the puck which he must stick to. Cover-points are often severe infringers of the position law. Point is less likely to offend by adventuring afield. Every man should keep his relative position so that his fellow players may without looking put the puck to him with the certainty that he will be there to take it.

PASSING.—When the forwards are rushing the puck abreast one or other of the center men should carry the disk until cover-point is reached. Cover is then in a quandary, as it is impossible for him to know whether the puck is to be passed to the right or to the left. On the other hand, if one of the ends has it cover knows certainly where the pass is to go, and so covers center. The puck, then, should be dribbled by a center man until cover-point interferes and then passed either to the other center or to an end, as cover's position makes advisable. Past cover, point engages attention. If the puck is with an end man a short pass back to a center should be made if possible, as, of course, the chance of scoring from in front of the goal is greater than from one side. If the puck is with a center man the best possible strategy to elude point—providing always the opponent allows it—is to make a quick double pass; for instance, if right center has the rubber he passes it across to left center while point is still too far off to check sticks or steal the disk. Point's attention is instantly transferred to left center, who at once passes back to right center, who tries for goal.

When the pass during a rush is made from one end across to the other the puck should be sent swiftly to the boards so that it will carom back well in front of the other player. This is a surer and a faster play than merely sending the rubber as far as the other player. The distance to be covered by the puck in the latter case is about 50 feet, and with passer and passee—to coin a word—skating at top speed accuracy is practically impossible.

IN A SCRIMMAGE about the opponent's goal, when no opening presents for a shoot, it is a good plan for one forward to drop back a short distance, have the puck passed to him and try a lift shoot. Or cover-point may move up and make the play instead of the forward. With the puck once back of the opponent's goal-line but one forward should go after it. The others should take positions where in case the puck is sent out to them they will have a fair chance at the goal. For the forward who goes back of goal to merely shoot the puck out in front in the hope that in some way or other one of his side will secure it and put it into the net is poor policy. Let there be a prearranged play for such cases, the puck going to a player who by playing away from goal a short distance manages to get himself uncovered.

In scrimmages in front of goal off-side play is very likely to occur, in which case, if the referee is doing his part, play is stopped and the puck is again faced. As while the rubber is in front of goal you have a chance to score, whereas in case of a face the opponent is quite as

likely to gain possession as you are, it is good policy to guard against off-side work.

Never pass the puck so that it will reach the player at his feet. Put it well in front of him, so that it will not be necessary for him to slow down to get it. It is better to err in passing too far ahead than too far back, for in the former case a spurt on the other man's part will probably get the disk, while in the latter case it is likely to happen that he will have to stop or turn and skate back to recover it, in which case, even if he is successful, he has lost time and the other players are thrown off-side.

Always slide the puck in passing it unless, as may sometimes happen, an opponent's stick or some other obstacle intervenes in the line of flight. In this case a lifted puck may go over the obstacle. This rule does not apply to the defense when returning the puck down the rink. Then a lift is good play, since it is not in danger of being stopped near goal.

Using the boards, or caroming, is a highly useful accomplishment and should be perfected by the wings especially. Caroming to elude an opponent is only possible when the puck is being taken down the side of the rink. In such case the puck is dribbled close to the stick until the opponent attacks. It is then lifted sideways at an angle against the boards so that it will pass inside of the opponent while you turn quickly and dodge him to the outside, recovering the puck again farther on. Of course to always carom in such a case is a mistake, since your

opponent is, naturally, expecting it, and it is therefore sometimes better to sweep the puck toward the middle of the rink and pass him without a carom. In caroming always lift the puck, since a sliding puck may be more easily stopped by stick or skate.

SHOOTING.—The hardest puck for a goal-tender to stop is one which reaches him at about the height of his knees. In this case his stick is of no use to him, he can not interpose his body and it is almost equally impossible for him to use his hands. Lifting the puck is done by catching the edge of the blade against the bottom of the disk and then twisting the blade upward and forward. The motion is a peculiar one and can be only mastered by experiment and perfected by practise. At any height a lifted puck is harder to stop than a sliding one. Without the friction of the ice, which after a few minutes of play becomes sprinkled with snow as a result of the cutting done by the skates and then presents added resistance to a sliding disk, the puck travels faster and farther, and is more difficult to judge. Therefore whenever possible lift the rubber in shooting at goal. In learning the knack of lifting remember that it is a knack and not something depending upon force. After you have discovered how it is done get arm and body into it to develop force.

A player should be able to shoot as well from one side as from the other. This is particularly true of the centers and right end.

Do not waste a try-at-goal by shooting while too far

distant. And do not attempt to shoot from an extreme angle save when you know the goal to be unguarded or when it is a case of either shooting or losing the puck to the opponent.

CHECKING.—Body checking consists of striking the opponent with your hip or shoulder and is a feature of the game borrowed from lacrosse. There are two opinions as to the wisdom of permitting body checking. It is undoubtedly accountable for almost all of the serious injuries sustained by hockey players. The rules, however, permit it, under certain restrictions, and as long as this is so body checking is a legal feature of the game. Body checking by forwards, however, has no excuse. It is at once dangerous and unnecessary; dangerous because of the fact that the man who is checking and the man who is checked are each skating at high speed and the impact must of necessity be violent; unnecessary because the forward who makes the check sacrifices more energy than he can afford to lose, and because nine times out of ten he accomplishes no more than might be accomplished by stick checking. In the case of the defense, however, body checking is far less dangerous and really accomplishes an end which, perhaps, no other means could. In this case the point or the cover-point is practically motionless, or at the most is advancing but slowly up the ice, and the impact is far less severe than that resulting from the collision of two bodies moving rapidly. A defense man, because of his greater inactivity, has a surplus of energy which he may use in body checking.

When all is said, however, body checking is still a questionable feature of the game, one which is accountable for most of the roughness that mars an otherwise clean, sound sport and one which will probably in time be wiped out.

The style of body check most effective is that in which the hip is used to deliver a blow against the opponent's hip. The hip is practically the center of gravity and a well-delivered blow there will usually put the opponent off of his balance and for the moment out of the playing. With an opposing forward rushing down upon him the point or cover-point, by skating slowly forward until in the forward's path and then "throwing" himself at the opponent, either taking him with hip or shoulder, can usually put his man down.

The best position in which to resist the body check is that in which the body assumes a well-balanced crouching posture, with the weight as near the ice as possible, and the upper body limber, so as to offer the least possible resistance to the impact.

A kind of body checking which is utterly wrong is that by which one player "bodies" another against the side of the rink or the boards. More often than not this is an infringement of the rule which prohibits charging from the rear and as such should be severely dealt with by the referee.

Stick-checking is a perfectly legitimate feature. It consists of knocking, pushing or holding aside an opponent's stick. However you do it, "make it good."

CHAPTER III

THE POSITIONS

The Forwards

THE FORWARDS are players whose duties are so nearly alike that their positions may very well be treated together instead of singly. It should always be possible—although it is seldom practicable—for any forward to exchange positions with any other forward. But this should be done only when the lack of a satisfactory man among the substitutes to take the place of a disabled or absent player makes a change in the line positions advisable.

In placing the forwards see that the surest goal-shooters occupy the center positions and the hardest and fastest skaters the wings. The centers are the men who, in the natural order of things, have the bulk of the shooting to do; the ends are the players who are not only required to skate over more territory, but, for the reason that they are each unsupported on one side, are more often attacked by opposing forwards and must rush fast and fiercely to keep the puck. The wing men should not only be able to skate fast but should be thoroughly at home on their blades; able to spring forward from a motionless position, to stop as quickly, to dodge sharply and to get over rotten

ice—such as frequently lies along the boards on the sunny side of an outdoor rink—on the points of their skates.

A wing man can help his stick work vastly by a clever use of his feet when attacked along the boards. The rules prohibit kicking or in any way advancing the puck with the foot or skate, but they do not prohibit using the skate to stop the puck or to hold it. When a player at the boards finds himself in danger of losing the puck during a scrimmage, his stick being checked by the opponent so that he can not make use of it, it is often possible for him to pocket the puck with his skates until a player of his side comes to his assistance.

Weight is of course an advantage to a forward, but other qualities should not be sacrificed to weight alone when the men for the forward positions are chosen. Science, cool judgment, speed and physical endurance are the more important requisites, and the sight of a small, "brainy" forward playing all around a larger and heavier man is not infrequent. In meeting a body check by a cover-point or point the forward should push the puck to one side where it will be handy to his stick in case he succeeds in avoiding or recovering quickly from the check. He should skate low and hard, limbering the upper part of his body so that it will give to the impact of the blow. Forwards should, when the goal is neared, be careful to keep their relative positions and not bunch up about the rubber. Close interference or, to use a football phrase, mass-plays about the goal are often suc-

cessful against a lighter team but are scarcely good hockey. These plays are designed to keep the opponents away from the puck by forming closely about it and then reaching the goal by brute force. If such tactics were logically developed the open work of the present-day game would disappear and we would see six players charging down the rink in wedge or some similar formation only to be met midway by an opposing mass and a grand *mêlée* precipitated. Science would give way to beef and brawn and instead of the graceful exhibition of to-day we should have a gladiatorial mix-up resembling hockey to about the same extent that a sewing-bee resembles a prize-fight. Undoubtedly, however, a change in rules will make its appearance before that pass is reached.

A forward's dress should be as light as the weather will permit and his skates should be as light as is consistent with strength. Having once found a style of stick which suits him he should either lay in a supply of that sort or observe it so carefully that he will be able to duplicate it when necessary.

Cover-Point

THE COVER-POINT is a member of the defense, but at times he is called upon to take part in offensive work. His position is practically half-way between goal and the center of the rink, but his territory extends from barrier to barrier across the rink and from his own goal

to the opponent's, but never back of it. The occasions, however, when the cover is entitled to take the puck up to the opponent's goal are very few. Ordinarily he should feed to a forward, but it sometimes happens that the puck comes into his position when a safe pass is impossible and a rush feasible. In that case his position should be at once covered by one of the forwards, and as soon as the goal has been tried or his usefulness near goal ends cover should at once regain his place. In the second half, when the opposing forwards show signs of weakening, the cover may increase his offensive work greatly since in such a case the play is bound to be largely in the opponent's territory and it is wise policy to sacrifice defensive strength for aggression.

When the puck is near the opponent's goal cover should go forward to a position near the center of the rink so as to be able to quickly return the puck if it comes back to him. When the occasion presents itself for a try-at-goal he should seize it at once, being careful, however, not to let his ambition to shine as a scorer mislead his judgment. With the puck in his own territory cover's place is near his own goal when once the rush has passed him. He should never pass the puck in front of his own goal. Having got possession of it there his play is to either send it to one side of the rink and at a safe distance away or skate toward opponent's goal and only pass it when it can be done with certainty.

Remember that when a forward is skating down upon you he will try first to save the puck. So watch the puck

and not the man. If he sends the puck aside in order to find it again after meeting you, swing out of his path and go after the puck. Otherwise watch his legs and feet. Never mind where his upper body swings; he can't go far without his feet. When they turn, turn with them. When you check, check hard; a half check is worse than useless.

In returning the puck to his forwards when the latter are near the opponent's goal cover should, unless he is playing well into opponent's territory, lift the disk back; a lift is harder for the opponent to stop than a slide and as soon as he has stopped it it is fair game for the opposing forwards.

In stopping a lifted puck cover should always use his hand and never rely upon stopping it with his stick. Cover's stick should be heavy and the blade should be thin enough at the sole to enable him to lift readily. He may dress a trifle heavier than the forwards.

Point

POINT is entirely a defensive position. The player's territory is limited strictly to the immediate neighborhood of his goal. He should never adventure farther afield than cover's position. Point and cover should work together like two cog-wheels and point and goal should work together like two more. Team-play in the defense is highly necessary and is capable of being developed to a high state of efficiency. Point should always

take a position relative to cover where he can watch the play in opponent's territory. If cover stands to the left of a line running lengthwise through the center of the rink from end to end, point should take his stand to the right of that line. And such positions should be maintained relatively during an attack since it is harder for a forward to dodge two men standing apart than two men one behind another. In an attack cover's duty is to block or check the man with the puck while point should put every effort into intercepting the pass. In other words, cover plays for the man and point for the puck.

When the puck goes back of or to one side of the net in a scrimmage point may go after it, in which case cover plays nearer to goal. But both point and cover should never leave their positions at the same time. If possible point should leave all back of goal work to a forward. If, as sometimes happens, goal leaves the net for an instant point should instantly slip into his position and stay there until goal has fully regained it.

In the face of a combined attack by all the opposing forwards both cover and point should fall back nearer goal, trusting rather to spoiling a shoot than to gaining possession of the puck, until their own forwards come to their support.

Goal

GOAL-TENDER holds what is probably the most responsible position on the team. When he fails in his endeav-

ors it means that the opponent has scored a point, while other members of his side may fail repeatedly with results comparatively unimportant or, at least, far less decisive. Goal, then, should be chosen for coolness, pluck, quickness and knowledge of the game. Physical qualities count for less in the goal than in any other player, although the larger he is the more space he fills at the net and the less undefended place remains. Quickness is an important essential, and by quickness is meant quickness of mind, of eye and of body. He must be quick to see a shoot at goal, quick to judge the puck and quick to put himself into position to stop it. He need not be a more than average good skater or an expert stick-handler. He should use well-padded leg-guards and have thighs and elbows thoroughly protected. It is well to remember that the more padding a goal wears the greater his bulk is and the harder it is to put the puck by him.

A goal should not attempt stops with his stick alone, but should use that implement chiefly to play the puck away after a stop. A goal who has had baseball experience will be able to judge a lifted puck accurately and so stop with his hands many a high shoot that might otherwise score for the opponent. As has been already said, the hardest puck to stop is one coming at goal about knee-high. The hands and upper part of the body can not be brought into use and the goal-tender must depend on his legs alone. With generous leg-guards—and so far the rules have not limited the size of these articles—

the goal can, however, by bringing both legs together and turning sideways, present quite a respectable surface. But goal does not always have time to get into position for shoots of this sort and quick passes in front of goal followed by sharp lifts frequently score. Keeping his eyes on the puck every instant is the goal's only salvation.

A high shoot is more easily stopped than a low one; consequently when there is a scrimmage near goal goal-tender should take a crouching position in order to put as much of his bulk as possible near the ice, being careful, however, not to infringe the rule prohibiting lying, kneeling or sitting. With the puck in play at one side he should take a position with one knee steadying against the goal-post at that side. When the play is in front he should occupy the middle of the goal, being careful to favor neither side.

There is but one rule regarding a goal-tender's right to leave goal; do so only when the play is absolutely sure. It sometimes happens that he can reach the puck before an opponent when none of his own side are at hand. In such a case to leave goal is allowable. But skating out to meet one forward, even if he keeps between the forward and the goal, is the riskiest sort of business and is indulged in principally by goals who are momentarily unnerved. Goal should never go back of goal for a puck unless the play is well at the other end of the rink. His place is in front of the net.

Goal should dress warmly, wear large well-padded

gloves and use a short-hafted, broad-bladed stick. His skates should be long enough in the blade to aid as much as possible in stopping slides and need not be sharply ground, since they are used to stand on rather than to skate on.

ICE HOCKEY RECORDS

SEASON OF 1903-04

INTERCOLLEGIATE HOCKEY LEAGUE

- January 9—Princeton, 1; Brown, 0.
January 16—Yale, 5; Columbia, 3.
January 23—Harvard won from Princeton by default.
January 27—Yale, 10; Brown, 0.
January 30—Harvard, 2; Columbia, 0.
February 3—Harvard, 7; Brown, 0.
February 6—Columbia, 3; Brown, 0.
February 13—Columbia, 2; Princeton, 1.
February 17—Yale, 4; Princeton, 3.
February 20—Harvard, 5; Yale, 2.
February 27—Harvard, 4; Yale, 3.

Intercollegiate championships have been won as follows: 1899-1900, 1900-'01, and 1901-'02, by Yale; 1902-'03, and 1903-'04, by Harvard.

American Hockey League championships have been won as follows: 1896-'97 and 1897-'98, by New York Athletic Club; 1898-'99, by Brooklyn Skating Club; 1899-1900, 1900-'01, 1901-'02, and 1902-'03, by Crescent Athletic Club.

ADDITIONAL RECORDS

ICE HOCKEY RULES

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SECTION 1. A team shall be composed of seven players who shall be *bona fide* members of the clubs they represent. No player shall be allowed to play on more than one team in the same series during the season.

SEC. 2. The game shall be commenced and renewed by a face in the center of the rink. Rink must be at least 112 feet by 58 feet. Nets shall be 6 feet wide and 4 feet high.

DEFINITION OF A FACE

The puck shall be faced by being placed between the sticks of two opponents and the referee then calling "play."

The goals shall be placed at least ten feet from the edge of the ice.

SEC. 3. Two twenty-minute halves, with an intermission of ten minutes between, will be the time allowed for matches; but no stops of more than five minutes shall be allowed. A match will be decided by the team winning the greatest number of games during that time. In case of a tie after playing the specified two twenty-minute halves, play will continue until one side secures a game, unless otherwise agreed upon between the captains before a match. Goals shall be changed after each half.

SEC. 4. No change of players shall be made after a match has commenced, except for reasons of accidents or injuries during the game.

SEC. 5. Should any player be injured during the first half of the match and compelled to leave the ice, his side shall be allowed to put on a spare man from the reserve to equalize the teams; should any player be injured during the second half of the match, the captain of the opposing team shall have the option of dropping a player to equalize the teams or allow his oppo-

nents to put on a man from the reserve. In the event of any dispute between the captains as to the injured player's fitness to continue the game, the matter shall at once be decided by the referee.

SEC. 6. Should the game be temporarily stopped by the infringement of any of the rules, the captain of the opposing team may claim that the puck be taken back and a "face" take place where it last was played from before such infringement occurred.

SEC. 7. When a player hits the puck, any one of the same side, who at such moment of hitting is nearer the opponent's goal-line is out of play, and may not touch the puck himself or in any way whatever prevent any other player from doing so, until the puck has been played. A player should always be on his own side of the puck.

SEC. 8. The puck may be stopped, but not carried or knocked on, by any part of the body, nor shall any player close his hand on, or carry the puck to the ice in his hand. No player shall raise the stick above his shoulder, except in lifting the puck. Charging from behind, tripping, collaring, kicking or shinning shall not be allowed, and for any infringement of these rules, the referee may rule the offending player off the ice for that match or for such portion of actual playing time as he may see fit.

SEC. 9. When the puck goes off the ice or a foul occurs behind the goals, it shall be taken by the referee to five yards at right angles from the goal-line and there faced. When the puck goes off the ice at the sides, it shall be taken by the referee to five yards at right angles from the boundary-line and there faced.

SEC. 10. The goal-keeper must not, during the play, lie, kneel or sit upon the ice, but must maintain a standing position.

SEC. 11. A goal shall be scored when the puck shall have passed between the goal-posts from in front.

SEC. 12. Hockey-sticks shall not be more than three inches wide at any part.

SEC. 13. The puck must be made of rubber, one inch thick all through and three inches in diameter.

SEC. 14. The captains of the contesting teams shall agree upon a referee, two umpires (one to be stationed behind each goal,

which positions shall not be changed during a match) and two time-keepers. In the event of the captains failing to agree on umpires and time-keepers, the referee shall appoint same.

SEC. 15. All disputes during the match shall be decided by the referee, and he shall have full control of all players and officials from commencement to finish of matches, inclusive of stops, and his decision shall be final.

SEC. 16. All questions as to games shall be settled by the umpires, and their decision shall be final.

SEC. 17. In the event of any dispute as to the decision of an umpire or time-keeper, the referee shall have the power to remove and replace him.

SEC. 18. Any player guilty of using profane or abusive language to any official or other players shall be liable to be ruled off by the referee as per Section 8.

SEC. 19. A goal-net shall be used.

CHAMPIONSHIP RULES AS ADOPTED BY THE AMATEUR HOCKEY
LEAGUE OF NEW YORK

SECTION 1. The season shall be from the 15th of December to the 15th of March, both days inclusive.

SEC. 2. The championship shall be decided by a series of games, a schedule of which shall be drawn up by one delegate from each club at the annual convention. The club winning the most matches shall be declared champion.

SEC. 3. All championship matches shall be played on rinks arranged for by the home club, subject to the jurisdiction of the League.

SEC. 4. The League shall offer a championship trophy, the winning club to hold same and be recognized as champions of the United States. The trophy shall be delivered to the winning club within seven days after the close of the season.

SEC. 5. Any club holding the championship for three years in succession shall become absolute owners of the championship trophy.

SEC. 6. Any team making default shall forfeit its right to compete for the championship for that season, and be liable to a

fine of \$100 unless good reasons can be given for defaulting. All matches played by defaulting teams shall be counted and future matches be awarded to opposing teams.

SEC. 7. In the event of any two clubs failing to agree upon a referee four days before the match, the Governing Committee shall appoint a referee on receiving notice from either club that an agreement is impossible.

SEC. 8. It shall be the duty of the captains of the contesting teams to hand to the referee the names of the players, for each match, previous to the start, on forms supplied by the Secretary of the League. The referee shall then fill in the date of the match, names of contesting clubs, the score at the finish, with names of umpires and time-keepers, the whole duly signed by himself and forwarded to the Secretary of the League.

SEC. 9. A player must be a *bona fide* member of the club he represents at least thirty (30) days before he is eligible to compete in championship games. No player shall play in an Amateur Hockey League scheduled game who, during the then current season, has played with another club in a recognized Hockey Association, without special permission of the Executive.

LAWN TENNIS

CHAPTER I

THE GAME AND HOW IT IS PLAYED

A Brief History of Lawn Tennis

IN its present form lawn tennis is a game of recent origin, dating back, as it does, only to 1874. But in the middle ages the French and Italian courts played a game containing the essential points of modern tennis. Major Wingfield, a British army officer, gave the present game to the world in 1874, devising a court which was 60 feet in length, 30 feet broad at the base lines and 20 feet across at the center, and which presented the appearance of a stout-waisted hour-glass. The game was taken up by a few persons and the following year the Marylebone Cricket Club adopted it, a committee being appointed to formulate rules. Changes were made in the dimensions of the court, but the hour-glass form was retained. The game gained friends so rapidly that in 1877 the first All-England championship tournament was held at Wimbledon. In 1888 the English Lawn Tennis Association was formed and has continued up to the present. This association assumed an authority which has never been questioned, and is responsible for the rules governing the game to-day.

LAWN TENNIS IN AMERICA, strange to say, dates back to the same year as does the English game. In 1874 it was seen in England by a visiting Bostonian and by him was brought to this country and first played on this side of the water at Nahant, Mass. As in England, its success was instantaneous, and by the following summer hundreds were playing it. Courts appeared in Boston, New York, Philadelphia and Newport. It was not until six years afterward, however, that the present United States National Lawn Tennis Association was formed in New York and uniform rules were adopted. The annual championship tournaments at Newport had their inception at the first meeting of the Association.

THE EARLY AMERICAN CHAMPIONS were James Dwight and Richard D. Sears, of Boston. Sears maintained his position at the head of the ranking list for seven years, giving way at last by default to H. W. Slocum at Newport in 1888. Slocum reigned two years and was followed by O. S. Campbell, who held the championship in 1890, 1891 and 1892. From that time to the present the championship has been the property respectively of R. D. Wrenn, F. H. Hovey, M. D. Whitman and W. A. Larned. In 1894 Wrenn met and defeated M. F. Goodbody of Ireland, after the latter had successfully encountered F. H. Hovey, C. Hobart and W. A. Larned. Again, in 1897, Wrenn was called upon to protect the American claim to supremacy and did so successfully by defeating W. V. Eaves.

THE INTERNATIONAL CHALLENGE CUP was put up by D. F. Davis in 1900 and a trio of challengers appeared from England in the persons of A. W. Gore, E. D. Black and H. R. Barrett. They were easily defeated.

The Waterloo of our players came in 1903 when the Davis Challenge Cup as well as the American singles and doubles national championships were captured by the Doherty brothers, of England, whose form was so much better in almost all departments of the game as to be a revelation of the possibilities of tennis to followers of the game on this side of the water.

Lawn tennis in this country has had its "boom days" and has now settled down to a condition of natural and healthy prosperity. The game as a fad has passed, but the game as a sport remains and finds new devotees each year.

How the Game is Played

THE COURT, as the playing territory is called, may be marked out on a lawn, on dirt, on asphalt, on concrete or on boards, the chief essential being a level surface. The best outdoor court is that made on a firmly packed soil composed of sand and clay. The dimensions are, length, 78 feet, width, 36 feet. This width is for a double court; for a single court the width is 27 feet. The court is marked out with white lines of lime or of cotton tape. A net 3 feet in height crosses the court in the center. Beside the boundary-lines

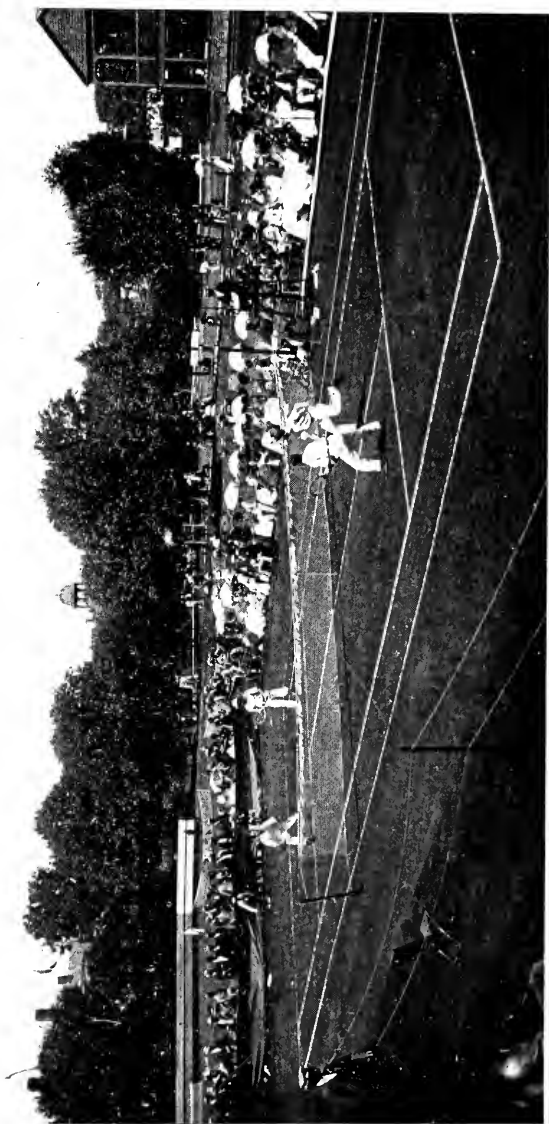
other lines divide the playing space as shown in Diagram O. (See Rules.)

THE IMPLEMENTS are a racket and one or more felt-covered hollow rubber balls filled with compressed air. The racket consists of an oval spoon, filled in with a network of catgut, to which a handle some 15 inches in length is attached. The ball is $2\frac{1}{2}$ inches in diameter.

The game may be played by two, three, or four persons. When two play the game is called singles and the single court is used. When three persons play the game is said to be three-handed, and when four persons play the game is called doubles. With more than two persons participating the double court is used.

THE OBJECT OF THE GAME is, briefly, to knock the ball with the racket over the net into the opponent's court in such a manner that he can not return it. The players take positions on opposite sides of the net. The man first playing the ball is called the server. Standing behind his base-line to the right of the center line he tosses the ball into the air and hits it with his racket as it descends, sending it across the net on the fly and into the opponent's right-hand service court, that is, in a slightly diagonal direction. The opponent, who is called the striker-out, waits for the ball to bound and then returns it to the server, who tries to again put it into the striker-out's court.

After the service has been returned either player has the choice of hitting the ball in the air (volleying) or on the first bound. The service must be made into the



SHARP VOLLEYING.

All four players coming up to the net. (Newport, R. I.)



striker-out's right or left-service court, as the case may be, but after that the ball may be played anywhere inside the boundaries. The server has two chances on each point—that is, if the first serve does not go into the right court it is called a fault and he may serve again. Two failures constitute a double fault and the server loses a point to his opponent. If the ball is served fairly and the striker-out fails to return it on the bound the point goes to the server. If the striker-out returns the service the server then tries to play it back to him, and the opponents alternately strike the ball back and forth until one or the other fails, the point then being scored against the player so failing.

SCORING.—The first point won is called 15. If A, who is serving, wins the first stroke the score stands 15—love (written 15—0). If B wins the second stroke the score becomes 15 all. If A wins the third stroke the score becomes 30—15. If B wins the fourth stroke the score becomes 30 all. If A wins the fifth stroke the score becomes 40—30. If A wins the sixth stroke the score becomes 50—30. Fifty is game and A consequently wins.

A DEUCE GAME.—If when A leads at 40—30, B captures the next stroke the score becomes 40 all, but is called deuce. It is now necessary for a player to win two successive strokes in order to win the game. If A makes the next stroke the score becomes vantage in; if B makes it the score is vantage out. With vantage in his favor either player may win the game by captur-

ing the next stroke. If he does not the score is again deuce.

A DEUCE SET.—The same idea is also applied to games, in this manner: Ordinarily the player first winning six games wins the set, but when each player has earned five games the score becomes games all or deuce and it is necessary for a player to win the next 2 games in order to win the set. If when the score is games all (5 all) A wins the next game (6—5) and B wins the next (6 all) the score again becomes games all. If A wins the next two games he captures the set, 8—6. Players may, however, dispense with the vantage feature by mutual agreement. The best two sets out of three usually constitute a match; in championship meetings, however, a match sometimes consists of three sets out of five.

The opponents change courts after each set, save in championship meetings, when in the concluding set they change after the first, third and each subsequent alternate game.

CHAPTER II

USING THE RACKET

THE first thing for the beginner is to accustom himself to the use of the implements. He should learn how to hold and swing the racket and discover by experience how hard it is necessary to hit the ball in order to send it a certain distance. If the beginner can find a high wall or side of a building against which he can hit the ball from different distances it will be an aid to him.

THE CHOICE OF A RACKET should be left to some one who has played the game. The principal things to consider are weight and balance, providing you are purchasing from a reputable house. For the ordinary player the racket should weigh not less than 13 nor more than $14\frac{1}{2}$ ounces. Fast work without plenty of weight in the racket is impossible, while too much weight will tire the wrist. Find a racket which feels right and which swings comfortably. Details of manufacture need not trouble you so long as you are buying from a house with a reputation for honest goods and fair treatment.

Rackets vary greatly in price. Practical rackets may be bought for as little as two dollars, while the finest cost as high as eight. A good serviceable racket may

be had for four dollars. There are several brands of balls any of which are satisfactory so long as they are new; never purchase a last season's ball, since rubber very quickly loses its life. A ball, irrespective of maker, which sells for four dollars a dozen will be found generally satisfactory.

HOW TO HOLD THE RACKET.—No matter whether you are serving or returning the serve, no matter what kind of a stroke you are making, *always hold the racket firmly*. A loose grip on the handle is a fault which, once acquired, is almost impossible to recover from. Therefore start right. Take the handle at the extreme end, the butt working against the palm of the hand. A forehand stroke is made when the ball is to the right of the body. In this case the hand grasps the handle somewhat diagonally, the forefinger being a trifle separated from the others but not laid stiffly along the handle. A backhand stroke is used when the ball is to the left of the body. In this case the fingers should be wrapped tightly around the handle, with the thumb at full length at the back as an aid to direction and force. This grip is also the proper one to use when making an overhand serve. It is, of course, necessary to alter the grip frequently during play, but the ability to do this comes readily until, with experience, the changing of the grip requires no thought. When at rest the racket should be held not hanging at arm's length but across the front of the body, the right hand retaining its firm grip on the butt and the left hand lightly supporting it at the

fork or splice. From here it may be readily brought into any desired position.

THE STROKE.—Another bad habit easily acquired and difficult to shake off is that of hitting the ball with a short, nervous jerk in which the arm alone is concerned. Such a stroke is deficient in accuracy and speed. Practise until you have developed a long swinging stroke not of the arm alone but of the whole body from the knees upward. The racket should start at the limit of your reach behind you, come forward with an easy, free motion *from the shoulder* and swing as far beyond you after the ball is hit as your reach will permit. This follow-through is just as essential in tennis as in golf, and is one of the secrets of success of most first-rank players. In the forehand stroke the racket comes up in front of the body and finishes over the left shoulder; in the backhand stroke it starts over that shoulder and finishes at the extreme limit of the outward reach. In the overhand serve the racket should not stop its descent in front of the shoulder, but should be brought on down until it swings back of the body. Practise these strokes until the muscles perform their work smoothly and there is no hitch from start to finish.

MANAGING THE BODY.—Getting into position for the ball, poising the body for the stroke and recovering the balance are important points. In the first place, keep your feet under you. Never try a stroke when you are at such a distance from the ball that you are obliged to overbalance to reach it. Have your balance perfect

when you hit, and then overbalance in the direction of the stroke, adding the weight of the body to the impulse and recovering by advancing the feet. While awaiting a serve divide the weight evenly on both feet, throw the balance slightly forward from the waist and face the opponent squarely. From this position you can start quickly in any direction. In making a forehand drive step forward with the left foot, start the racket well back, sweep it forward hard and fast, throw the weight on to the left foot as the stroke is made and recover the balance by advancing the right foot.

MEET THE BALL; that is, advance toward it instead of remaining motionless or moving backward. Do not make the common mistake of getting too close to it and so cramping the stroke. This is especially likely to happen with the novice when trying backhand strokes. It is better to start the stroke too far away and trust to being able to move up while making it than to get too close and have to move back. In the latter case neither speed nor accuracy of direction are possible.

EXTEND THE ARM; do not make a stroke with the elbow bent. If you do you will "chop" the ball. Do not overwork the wrist. The wrist performs its part at the beginning and end of the stroke, not during the swing.

KEEP THE EYES ON THE BALL from the instant it leaves the opponent's racket until it meets your own. Discover at a glance while getting your position for the stroke where your opponent is and decide instantly where to put the ball, but do not "give away" the play by looking toward that part of the court.

CHAPTER III

SERVING

IN serving the player must make the ball travel a distance of 39 feet before it crosses the net; the net is 3 feet high at the center, increasing to 3 feet 6 inches at the ends; and after crossing the net the ball must fall within a space 21 feet by $13\frac{1}{2}$ feet in area. At first thought the server's task is not difficult; it is merely necessary for him to send the ball away in an arching flight so that it will go over the net and drop into the court beyond. But a ball which arches to any extent is slow, and on the other side of the net is an opponent waiting to receive it and put it back into the server's court where the latter will have difficulty in getting it. A slow ball with an easy bound is just what will please him most. Therefore it becomes necessary for the server to send a swift ball, one which will bound at a slight angle and render the striker-out's work as difficult as possible.

So the server stands back of his line, tosses the ball up and swings down hard with his racket. The ball goes away with plenty of speed but slams into the net. The server tries it again, resolved this time to get it over the canvas. He succeeds. The ball, going like a shot, gets into no difficulties with the net, but lands four feet back

of the opponent's service-line; double fault for the server; a point for the other chap. The server tries again. He thinks he sees his mistake. So he gets up on to his toes, tosses his ball far into the air and lets drive. Unfortunately, he is overbalanced and the stroke sends the ball into the back net, the opponent dodging it as it sings by his head. The server becomes suddenly cautious. No double fault for him again. He sends the next ball away with a nice slow arch. It bounds high and true and the opponent drives it back into the extreme left corner of the server's court, where it is impossible for the latter to get it. Another point for the striker-out. After that set, if the server is possessed of good sense he finds some one who knows how to serve and takes a few lessons.

THE UNDERHAND SERVICE.—In the infancy of tennis the serve most used was the underhand cut or twist, in which the ball was made to bound from the ground in as erratic a manner as possible. All sorts of angles were possible; in some cases there was almost no bound, the ball trickling along the ground after striking as though insane. But with the advent of fast return strokes, notably the Lawford drive, the underhand service went out of fashion. To-day it is practically never used, and the hard overhand service, with or without twist, has taken its place.

THE OVERHAND SERVICE.—The best service for the beginner to learn is the straight overhand with a trifle of cut to the right. Start the ball at top reach, getting up

on the right toe if necessary, and bring the racket to it so that it is struck slightly from above and slightly on the right side. The spin resulting is one to the server's right and downward, which puts a certain amount of cut on the ball and forces it to the opponent's right, as well as enough drop to bring it into the court when, without the impulse from the top, it would naturally land back of the service-line. This is not a difficult serve to learn and when once mastered may be made at the greatest speed of which you are capable. In practising it, however, it is best to learn the principle of the stroke thoroughly before trying to combine speed with it. If you find it necessary to get up on the toe of your right foot in order to attain sufficient elevation use the left foot to maintain your balance; without perfect balance until after the ball has been struck no success in this or any other service is possible.

THE REVERSE SERVICE is somewhat more difficult to acquire any great amount of proficiency in. But having once learned the above, the reverse will come with practise, and when mastered is of much value. It is merely the opposite of the right-side cut, the racket being drawn past the ball from right to left. By using both serves you can diversify your delivery so as to keep the opponent generally ignorant as to what is going to happen to him.

THE AMERICAN TWIST SERVICE, which popped into prominence a few years ago at the international meetings, is merely the service above described perfected. The

ball is struck well on top and at the same time the entire face of the racket is drawn sharply across it from left to right, or *vice versa*. The roughness of the felt cover here serves a double purpose; it engages the strings of the racket so that a rapid spin is created, and, after leaving the racket, it offers great resistance to the air. The ball is sent away, say, with a left-to-right spin; consequently the right side of the ball travels faster than the left, creates more friction with the air than does the other, and so, following the line of least resistance, bears constantly to the left. At the same time, however, because of the fact that the impulse has been given largely from above, the line of least resistance is beneath as well as to the right, and the consequence is that a ball well delivered with this stroke cuts to the server's left and also drops quickly after passing the net. To those who understand the art of curving a baseball this curving of a tennis-ball offers no puzzling features.

The ball sent across the net with the left-to-right spin naturally bounds smartly to the right after landing, while a ball sent with the reverse spin bounds to the left; in each case the bound is in the direction opposite to the curve. It is not a service for the beginner to attempt, but is possible of mastery by any player who has acquired speed and dexterity in the use of the racket. At first it tells greatly on the muscles of the abdomen because in making the stroke it is necessary to lean backward and start the racket from a point as low as possible behind you, bringing it up and forward with a hard

sweep of the arm. There is a knack to the quick, sharp side-to-side motion, however, which can only be solved by repeated experiments.

THE SECOND SERVICE, no matter what the first has been, should be kept as long and low as is consistent with safety. The fault of many beginners is that they attempt a fast, slashing first service, and when that fails, as it does more often than not, pop over a slow service that bounds so high that the opponent easily "kills" it with a hard drive. It is far better tennis to put the first service over, even if it is necessary to reduce its speed, than to lose it entirely and have to depend on the second. A fairly fast ball that is certain of success eight times out of ten is of far more value than an extremely fast one that is only occasionally successful.

CHAPTER IV

RETURNING

By returning is meant here the act of playing the ball in any way save by service. The term includes the Ground-stroke, the Volley and the Lob.

The Ground-Stroke

By this is meant the stroke used in playing a ball that has struck the ground. Fully two out of three strokes are ground-strokes, although the rules require that only the return of the service shall be such. No game can be won by service and volleying only, and the ground-stroke is the first and the most important thing to learn. The ground-stroke may be made in several ways, as by the straight side-stroke, the drop-stroke and the chop-stroke. All have their uses.

At what part of the bound from which to play the ground-stroke is a matter of opinion. Theoretically at least the player who moves in on the ball and takes it just as it rises from the ground is playing a faster game and a harder game than the one who waits for the ball to descend from the top of the bound. But to do this successfully every time is a difficult matter, and until the

beginner has acquired certainty in judging the ball it is better for him to make the stroke after the ball has reached the top of its arc and has begun to drop. As to holding the racket, remember what has been already said as to keeping a tight grip. A loosely held racket will turn in the hand unless the ball strikes the center of it, and even when it does not turn is incapable of delivering a sharp, firm blow.

KEEP THE RACKET HORIZONTAL; that is to say, play every stroke with the head practically no lower than the butt. To do this it often becomes necessary to bend the body, but the habit is easily acquired and by it accuracy and steadiness are insured. The player who makes his strokes with the racket in a perpendicular position can never become more than a mediocre player, no matter how brilliant he may be at serving or covering court.

THE SIDE-STROKE.—The twist is an important feature of the side-stroke. A fast ball ordinarily bounds low, perhaps no higher than the knee, and if returned without any twist will usually go out of court. Therefore a certain amount of down twist is necessary. Use a long, clean swing, starting the racket well back of the body, meet the ball as it starts to drop from the top of the arc, give a slight twist of the wrist so that the upper edge of the racket will be in advance of the lower as the ball is struck and carry the racket well through. Get the weight of the body into the stroke. The ball will get away with a downward spin that will cause it to

drop sharply after crossing the net. When necessary to get by an opponent who is playing close up in the expectation of volleying, this stroke is far more serviceable than a slow, high ball which could be easily killed. The harder the ball is struck the sharper will be the drop; it is not so much the amount of twist that regulates the drop as it is the amount of impetus. Therefore, do not fall into the error of jerking the wrist and so making two distinct movements of the stroke where there should be but one.

DO NOT SACRIFICE STEADINESS FOR SPEED.—Learn first to put the ball where it will do the most good and then increase the speed of your strokes; but do not go beyond the point where certainty ceases. Hard, slashing strokes that send the ball into the net or out of court may look formidable but are of small value—save to the opponent.

THE DROP-STROKE is an exaggeration of the side-stroke, and when first used was known as the “Lawford.” The slight, imperceptible twist used for the side-stroke becomes an upward glancing sweep of the racket, which gives the ball a sharp top-to-bottom spin and causes it to drop erratically from its original line of flight. When well performed the drop-stroke is more difficult to volley than any other. As in the side-stroke, of which this is merely a variation, a full, long sweep of the racket is necessary, and the follow-through should not be slighted.

THE CHOP-STROKE is made by meeting the ball with



AT THE NET.

A forehand volley. (Narragansett Pier, R. I.)

the racket with an underneath glancing blow, which causes the ball to stay up instead of drop, the spin being a backward one and just the reverse of that given by the drop-stroke. The stroke is necessarily a slower one, but partially atones for that by reason of its increased accuracy. To play a ball that is less than hip-high with this stroke and keep it from going out of court is a difficult feat; plenty of elevation at the time the ball is struck is necessary for the success of the chop-stroke.

THE BACKHAND CHOP-STROKE is the commonest of all strokes made to the left of the body, and the easiest.

THE BACKHAND SIDE-STROKE, if it can be acquired, is far more valuable than the chop-stroke, but it is extremely difficult and utterly worthless unless properly played. To use the drop-stroke in backhand playing is, of course, out of the question.

The Volley

Elsewhere the rule has been laid down that all strokes should be made with the arm extended and the elbow practically unbent. Like every good rule, this one possesses its exception. In certain backhand strokes it is necessary to bend the elbow in order to obtain leverage; this is especially so of strokes made when the ball is volleyed in front of the body, as is often necessary when playing up to the net. But with this exception the volley, like the ground-stroke, should be made with a full arm.

Sometimes it is only necessary in volleying a hard-hit ball to place the racket in its path, keeping the grasp on the handle rigid. Generally, however, it is necessary to strike the ball forcibly. If the player is well away from the net he usually has time to prepare for the stroke by swinging his racket back and then meeting the ball as in a ground-stroke, only with less force. Avoid underhand volleying; if it is not possible to volley with the racket in a horizontal position retreat and take the ball with a ground-stroke. Volleying is primarily a net play. Get the racket in the path of the ball, move it back only a few inches, and then, as the ball strikes it, move it forward again, not attempting to hit the ball, but rather *pushing* it, a slight twist of the wrist giving the direction. This is the usual play for an ordinary ball coming at you from ordinary elevation. But there is besides what is called the stop-volley, which is also useful for this sort of ball.

THE STOP-VOLLEY is made from a position close up to the net. The racket is held where the ball will strike it and the grasp on the handle relaxed so that the impact is deadened and the ball, instead of springing away from the racket, merely drops to the ground on the other side of the net with practically no bound. In effect this strike corresponds to the bunt used in baseball. It is possible of success only when the ball is coming swiftly.

OVERHEAD VOLLEYING OR SMASHING is valuable when the player at the net has a dropping ball to dispose of. The player, in order to make this stroke successful, must

first of all get into the right position. This position is directly in the path of the descending ball, not in front of it nor behind it. If the player will place himself where, if he does not guard himself, the ball will strike his face he will be in the correct position to "kill" it. Start the racket well back of the right shoulder, with the end nearly touching the ground, and bring it up and forward with a full-arm swing, coming down on the ball with the face of the racket squarely toward it. As the blow is struck throw the weight of the body into it, recovering the balance by bringing the right foot forward. Never attempt a smash from a point farther back from the net than the service-line and always try to put the ball away from the center of the opponent's court.

THE HALF-VOLLEY is sometimes necessary; when it is it is because the player has unwittingly placed himself in poor position. The stroke is uncertain at the best and should be avoided.

The Lob

This stroke is of great defensive value, and, in the hands of some players, becomes also a highly successful method of attack. As a defensive play the lob is made to get the ball past an opponent at the net who is waiting to smash it or to gain time in which to recover a lost position. Thus, if you find yourself near the service-line and well over to the side of the court, with the opponent playing up to the net, a lob will accomplish two things:

it will give you time in which to regain a position in the center of the court and it will cheat the opponent of a chance to "kill" the ball by a swift, well-placed volley.

The lob has the merit of being difficult to take by a volley, the players who can "kill" a lobbed ball being few and far between. It is this that renders the stroke of value as offense. If the opponent has gained an advantageous position at the net from where he can volley into almost any part of your court the lob may save you the point. Send the ball over his head and as near the base-line as possible. In this case to give the ball extreme height is a mistake, as the more height there is the more time the opponent has in which to get back and prepare for the return. The aim, then, is to put the ball safely out of his reach and as far toward the back of his court as possible. When he goes after it take the net yourself. Whether the lob is used defensively or offensively, never put the ball short of the service-line. From the service-line to the base-line lies the territory for lobs. To attempt to put the ball near the side-line is extremely risky, for a high-hit ball encounters various currents of air which it is impossible to take into consideration in making the stroke and which may deflect the ball sufficiently to bring it down out of court. In making the stroke get the racket well under the ball and sweep it upward with a movement of the arm; do not trust to the wrist alone. Except when there is much wind do not be afraid of letting yourself out and sending the ball high; the high lob is nearly always more successful than the short

one. After you have become somewhat expert at the stroke even a fair wind need not deter you from hitting up pretty well, for by taking the wind into consideration and sending the ball aloft at an oblique, you will be able to make with safety a play that will worry the opponent considerably. Practise the stroke until it comes as easy as any other.

CHAPTER V

TACTICS

IN SERVING take a position near the center of the base-line. There are several reasons for this. One of them is that the ball will have a less distance to travel, and so will be in better command both as to speed and direction. Another is that from this position it is possible to send the ball to any part of the opponent's service court with more certainty. Still another is that after the service you are in a position to protect your own court. Study the opponent's position. If he is standing well over to the left of his court it is fair to assume that he is weak on backhand strokes and is striving to protect himself against them. If he has left the extreme right of the court unguarded place the serve there; if he has not put the ball where a backhand return will be almost imperative. If he shows weakness in backhand work see that he has plenty of it. Rely on placing first, then on speed; combine the two, but don't sacrifice direction to swiftness.

POSITION AFTER SERVICE.—If you have served from what is practically the center of the base-line you are in the best possible position from which to go after the op-

ponent's return. Don't follow the ball and run into the middle of the court, but stay where you are, watch the opponent first, then his racket and finally the ball, and keep on your toes, ready to start for whatever part of your court the ball is coming to. It is a fact that the strongest position you can occupy is "at the net," i. e., about midway between the net and the service-line, but don't be in too big a hurry to get there. The time to run up to the net is after you have made a stroke which the opponent will have difficulty in returning; go up then and volley the ball. But do not go up after you have played the ball weakly; your position then is in deep court. If by lobbing or by swift drives to the opponent's deep court you have driven the latter back to or beyond his base-line, get to the net by all means and volley. The net position then is the winning one. Whenever during the game you can drive the opponent back and get the net, do so; but do not dispute that position with him after a weak play on your part.

IN RECEIVING your position so far as the distance back of the service-line is concerned depends upon the speed of the opponent's service. If he sends swift balls they will strike near the service-line and bound low. Your place then is well back where you can take them at the instant they begin their drop, unless, of course, you have perfected your playing to a point where you can with certainty take the ball on the rise. Wherever you stand recollect that you should move up on the ball and not allow the ball to come back to you. As regards

the side-line and center-line your position should be a normal one, giving the opponent no hint of any weakness of backhand play should such weakness exist.

IN RETURNING aim to put the ball as close as possible to the opponent's base-line, using speed only as far as certainty accompanies it. At the same time play for the side-lines. If you can get the ball into the extreme corner you are doing as well as possible. In such case run up to the net and be prepared to volley by the time the ball comes back to you. If, however, you have returned weakly, either as regards placing or speed of stroke, keep away from the net. You have given the opponent a chance to do his best and your whole court is his territory for attack. Get back to center deep court and be prepared to move in any direction. In short, beware of the net when it is evident to you that the opponent can "pass" you—that is, get the ball by you on either side.

If the opponent runs up immediately after the service there are two plays possible which should win you the point. If the opponent runs up through the center of the court put a slow ball down the nearest side-line. If he comes up on that side of his court play the ball across the court in front of him so that it will strike near the other boundary. Beside these plays there is another which you may or may not be able to make, everything depending on the kind of service you have to return; I refer to a lob into deep court. This play if successful will drive the opponent back again on the run and will

give you the net. But there are many services which it is impossible to convert into successful lobs.

IN NET PLAY don't be too violent. To attempt to smash everything isn't the best playing. Use your head at the net if you ever use it at all. To smash a ball while the opponent is playing back in expectation of just such a play isn't always advisable. Try a stop-volley sometimes. Place the ball sometimes where the opponent will have to race and work hard to get it; if he does get it the return will be so labored as to be easily handled; and whether he gets it or doesn't get it the exertion will tell on him. The smash should be used discriminately; it's a good play but is often abused.

CHANGE YOUR PLAY now and then; it will bother the adversary. Find out what he likes least of all and give him a full dose of it. If he loses his temper—or rather whether he does or not—keep your own.

CHAPTER VI

THE COURT; HOW TO MAKE AND MAINTAIN IT

THE best all-purpose court which can be made at medium expense in this country is what is known as the clay court. Turf courts are extensively used and are pleasant to play on, but they are considerably slower than clay courts and do not stand continued usage well. Concrete, cement and asphalt courts are open to many objections, the greatest of which is their liability to crack or flake under the action of frost, and the least of which is their effect on balls and shoe-soles. Cinder courts answer fairly well so long as they are carefully tended, but they are hard on the player's feet because of their loose, gritty surface, and will soon wear the cover off of a ball. The plain, every-day "dirt" court is preferable to the cinder affair, and, on the whole, makes a satisfactory surface so long as it is kept well rolled and drained. But the clay court will repay for the trouble and expenditure necessary for its construction by its lasting qualities and by the ease with which it may be kept in condition.

IN SELECTING A SITE beware of low ground which shows a disposition to hold moisture, as perfect drainage is essential. Trees should not be near enough to throw shade on the playing territory. The size of the double court is 78 by 36 feet, but you should allow for a margin

of not less than 12 feet on each side, and one of at least 20 feet at each end. Lay the court north and south, or approximately so, in order that the late afternoon sun will not shine into the players' eyes.

DIG AWAY THE SOIL to the depth of one foot and level the exposed surface carefully, allowing a drop of from four to six inches from each end toward the center. Then roll it hard. On it place a six-inch layer of broken rock or slag, and pound and roll thoroughly until it is compact and smooth but loose enough to allow water thrown upon it to percolate readily. If convenient lay a line of terra-cotta drain-pipe, such as is used for draining fields, across the court in the middle under where the net is to hang, allowing the top of it to lie not more than four inches from the final surface of the court and giving it a slight slope to one side of the court where the water should be allowed to waste away into a bed of broken rock or a sunken barrel. This drain constitutes an excellent feature, but is not ordinarily absolutely necessary. The next layer of filling should be about three inches thick when thoroughly firmed down, and may be of fairly coarse gravel and sand or of coarse cinders. The latter has two advantages over the former; it is more resilient and can not be pierced by grass or weeds should the roots of such remain below. This layer, like the preceding one and the one following, should be carefully graded toward the center. It should be watered copiously and rolled thoroughly; three days is not too much time to spend on this stage of the work.

FOR THE SURFACE DRESSING use equal parts of coarse beach sand or builder's sand and clay. Mix it thoroughly in piles, turning it over and over again, and finally spread on the court until it is well above the proposed surface. All that now remains to be done is to pound and roll it hard and firm, sprinkling with hose or watering-can as the work progresses, and to fill in all depressions. If, when completed, the surface proves too sticky sprinkle with more sand. During the next week water and roll the surface each day and watch for depressions; any spot on which the water stands should be filled in. A hard rain will put your work to a very thorough test, and after it is over you will probably find some washes and pools, resulting from the settling of the earth, which will need attention.

MAINTAINING A CLAY COURT, after it is once in good condition, is not difficult. It should be lightly swept free of clods and rubbish every day and should be well sprinkled at least thrice a week—the best time to do this is in the evening unless the weather is particularly dry with no dew—and rolled while still moist the next morning. It will be necessary to remove an occasional pebble, to fill in a depression now and then and to keep weeds and grass from the margins. The court should have a thorough going over each spring before it is wanted for use.

TO MARK OUT THE COURT, first find the center of the space at your disposal. From this measure $13\frac{1}{2}$ feet each way toward the sides of the space and set stakes. The

line between these stakes represents the position of the net, and should be 27 feet long, and should run at right angles with the sides of the space. To one net stake attach a measuring tape 39 feet long and to the other a tape 47 feet 5 inches long. Draw each one taut and bring the ends together until they meet, at which point set a stake indicating the junction of base-line and the side-line. Measure 21 feet from the net stake along the line to the corner stake, and so find one end of the service-line. Now interchange the tapes, and by the same method find the junction of the base-line and the opposite side-line, and as before put a stake down 21 feet from the net stake to indicate the other end of the service-line. You have now secured the boundaries of one court. The same process on the other side of the net stakes will find the corresponding boundaries.

Next, by finding the middle point of the two service-lines and connecting them you have the center-line, and your single court is complete.

To enlarge it into a double court extend each base-line 4 feet 6 inches and from the points so secured run new lines parallel to the single-court side-lines. Place your net posts three feet out from the double-court side-lines.

LAWN-TENNIS RECORDS

THE SEASON OF 1903

The tennis season of 1903 was a remarkably prosperous, as well as an extremely interesting one in this country. It witnessed a large increase in the number of minor tournaments and saw the best American talent go down before the superior playing of the Doherty brothers, champions of England. They won the Davis International Challenge Cup at Longwood, Mass., on August 7th, by defeating the Wrenn brothers, 7-5, 9-7, 2-6, 6-3. On August 8th, on the same courts, H. L. Doherty defeated Larned, American champion, in singles, 6-3, 6-8, 6-0, 2-6, 7-5. R. F. Doherty won from R. D. Wrenn, 6-4, 6-3, 8-6.

At Newport the Englishmen won the American championship in doubles by defeating Waldner and Collins, 7-3, 6-3, 6-3, after those players, Western champions, had earned the right to meet the challengers by winning from the Eastern champions, Ware and Ward. H. L. Doherty subsequently won the singles championship by defeating W. J. Clothier.

In Philadelphia, on June 27th, Miss Elizabeth Moore defeated the former champion, Miss Marion Jones, and captured the Woman's National Championship.

LAWN-TENNIS RANKING FOR 1903

SINGLES

Class 1. Owe 3-6 of 15—William A. Larned, Annapolis, Md.

Class 2. Owe 2-6 of 15—Holcombe Ward, South Orange, N. J.; William J. Clothier, Philadelphia, Pa.; Beals C. Wright, Boston, Mass.

Class 3. Owe 1-6 of 15—Kreigh Collins, Chicago, Ill.

Class 4. Scratch—Edwin P. Larned, Summit, N. J.; Harry F. Allen, Philadelphia, Pa.; Edgar W. Leonard, Boston, Mass.; R. H. Carleton, New York, N. Y.

Class 5. Receive 2-6 of 15—C. Seaver, Boston, Mass.; Kenneth Horton, Nahant, Mass.; Robert Huntington, Stotesburg, N. Y.; Stephen C. Millett, New York, N. Y.; Louis H. Waidner, Chicago, Ill.; J. E. D. Jones, Providence, R. I.

Class 6. Receive 3-6 of 15—Robert Le Roy, New York, N. Y.; R. Hunt, Alameda, Cal.; J. Neely, Chicago, Ill.; I. C. Wright, Boston, Mass.; C. F. Watson, Jr., South Orange, N. J.; F. Geohagan, Washington, D. C.

Class 7. Receive 4-6 of 15—S. Warland, Cambridge, Mass.; A. S. Pier, Boston, Mass.; Ross Burchard, New York, N. Y.; Wylie C. Grant, New York, N. Y.

Class 8. Receive 5-6 of 15—John C. Davidson, Washington, D. C.; Frederick G. Anderson, Brooklyn, N. Y.; Harry W. Mollenhauer, Brooklyn, N. Y.; H. H. Whitman, Boston, Mass.; Robert M. Miles, South Orange, N. J.; R. Bishop, Boston, Mass.; H. Holt, Boston, Mass.; Ovidio M. Bostwick, New York, N. Y.; H. Torrence, Tenafly, N. J.; W. P. Blagden, New York, N. Y.

Class 9. Receive 15—Theodore Roosevelt Pell, New York, N. Y.; Samuel C. Westfall, Brooklyn, N. Y.; A. Fuller, Boston, Mass.; Louis E. Mahan, New York, N. Y.; B. S. Prentice, New York, N. Y.; A. Hoskins, Philadelphia, Pa.; B. F. Merrill, Boston, Mass.; J. B. Read, Boston, Mass.; Dr. L. W. Glazebrook, Washington, D. C.; F. Colket, Philadelphia, Pa.

Class 10. Receive 15 and 2-6—Harry E. Avery, New York, N. Y.

DOUBLES

Class 1. Scratch—William A. Larned and Beals C. Wright, Holecombe Ward and Leonard E. Ware, Robert D. Wrenn and George L. Wrenn, Jr., Kreigh Collins and Louis H. Waidner.

Class 2. Receive 2-6 of 15—William A. Larned and Malcolm D. Whitman.

Class 3. Receive 4-6 of 15—William J. Clothier and Edgar W. Leonard, Beals C. Wright and Irving C. Wright.

Class 4. Receive 15—Harry F. Allen and Robert Le Roy, Irving C. Wright and Edgar W. Leonard, and Wylie C. Grant and Robert Le Roy.

OFFICIAL RANKING LISTS SINCE 1895

1895.	1896.	1897.
F. H. Hovey.	R. D. Wrenn.	D. D. Wrenn.
W. A. Larned.	W. A. Larned.	W. A. Larned.
M. G. Chase.	C. B. Neel.	W. V. Eaves.
John Howland.	F. H. Hovey.	H. A. Nesbit.
R. D. Wrenn.	E. P. Fischer.	H. S. Mahoney.
C. B. Neel.	G. L. Wrenn, Jr.	G. L. Wrenn.
C. Hobart.	R. Stevens.	M. D. Whitman.
Richard Stevens.	M. D. Whitman.	Kreigh Collins.
A. E. Foote.	L. E. Ware.	E. P. Fischer.
C. R. Budlong.	G. P. Sheldon, Jr.	W. S. Bond.
1898.	1899.	1900.
M. D. Whitman.	M. D. Whitman.	M. D. Whitman.
L. E. Ware.	D. F. Davis.	D. F. Davis.
W. S. Bond.	W. A. Larned.	W. A. Larned.
D. F. Davis.	J. P. Paret.	B. C. Wright.
C. R. Budlong.	Kreigh Collins.	Kreigh Collins.
E. P. Fischer.	George Wrenn, Jr.	G. L. Wrenn, Jr.
G. L. Wrenn.	L. E. Ware.	Holcombe Ward.
Richard Stevens.	B. C. Wright.	L. E. Ware.
S. C. Millett.	Holcombe Ward.	J. L. Allen.
G. K. Belden.	R. P. Huntington, Jr.	R. D. Little.
1901.	1902.	1903.
W. A. Larned.	W. A. Larned.	W. A. Larned.
B. C. Wright.	M. D. Whitman.	Holcombe Ward.
D. F. Davis.	B. C. Wright.	W. J. Clothier.
L. E. Ware.	Holcombe Ward.	B. C. Wright.
Clarence Hobart.	W. J. Clothier.	Kreigh Collins.
R. D. Little.	L. E. Ware.	E. P. Larned.
Holcombe Ward.	R. D. Little.	H. F. Allen.
Kreigh Collins.	H. H. Hackett.	E. W. Leonard.
E. P. Fischer.	Clarence Hobart.	R. H. Carleton.
W. J. Clothier.	Kreigh Collins.	C. Seaver.

RULES OF LAWN TENNIS

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THE COURT

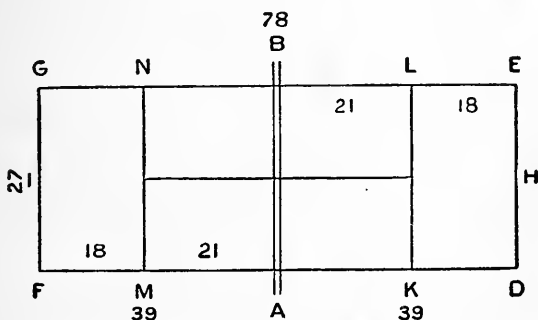


DIAGRAM O.—Double tennis court.

1. The court is 78 feet long and 27 feet wide. It is divided across the middle by a net, the ends of which are attached to two posts, A and B, standing 3 feet outside of the court on either side. The height of the net is 3 feet 6 inches at the posts, and 3 feet in the middle. At each end of the court, parallel with the net and 39 feet from it, are drawn the base-lines D E and F G, the ends of which are connected by the side-lines D F and E G. Half-way between the side-lines, and parallel with them, is drawn the half-court line I H, dividing the space on each side of the net into two equal parts, the right and left courts. On each side of the net, at a distance of 21 feet from it, and parallel with it, are drawn the service-lines K L and M N.

THE BALLS

2. The Balls shall measure not less than $2\frac{1}{2}$ inches nor more than $2\frac{3}{8}$ inches in diameter; and shall weigh not less than $1\frac{1}{8}$ ounces, nor more than 2 ounces.

THE GAME

3. The choice of sides, and the right to serve in the first game, shall be decided by toss; provided that, if the winner of the toss choose the right to serve the other player shall have choice of sides, and *vice versa*, or *the winner of the toss may insist upon a choice by his opponent*. If one player choose the court the other may elect not to serve.

4. The players shall stand on opposite sides of the net; the player who first delivers the ball shall be called the server, and the other the striker-out.

5. At the end of the first game the striker-out shall become server, and the server shall become striker-out; and so on alternately in all the subsequent games of the set, and following sets.

6. The server shall serve with both feet behind, i. e., farther from the net than the base-line, and within the limits of the imaginary continuation of the center service and the side-lines. It is not a fault if only one of the server's feet do not touch the ground at the moment at which the service is delivered. He shall place both feet upon the ground immediately before serving, and shall not take a running nor a walking start. He shall deliver the service from the right and left courts alternately, beginning from the right, in each of his service games, even though odds be given or owed.

7. The ball served must drop between the service-line, half-court line, and side-line of the court, diagonally opposite to that from which it was served.

8. It is a fault if the ball served drop in the net beyond the service-line, or out of court, or in the wrong court; or if the server do not stand as directed by law 6. If the server, in attempting to serve, miss the ball altogether, it does not count a fault, but if the ball be touched, no matter how slightly, by the racket, a service is thereby delivered, and the laws governing the service at once apply.

9. A fault can not be taken.

10. After a fault the server shall serve again from the same

court from which he served that fault, unless it was a fault because he served from the wrong court.

11. A fault can not be claimed after the next service is delivered.

12. The server shall not serve till the striker-out is ready. If the latter attempt to return the service he shall be deemed ready.

13. A service or fault delivered when the striker-out is not ready counts for nothing.

14. The service shall not be volleyed—that is, taken before it has touched the ground.

15. A ball is in play on leaving the server's racket, except as provided for in law 8, and remains in play till the stroke is decided.

16. It is a good return, although the ball touch the net; but a service, otherwise good, which touches the net shall count for nothing.

17. The server wins a stroke if the striker-out volley the service, or if he fail to return the service or the ball in play; or if he return the service or the ball in play so that it drops outside of his opponent's court; or if he otherwise lose a stroke, as provided by law 20.

18. The striker-out wins a stroke if the server serve two consecutive faults; or if he fail to return the ball in play; or if he return the ball in play so that it drops outside of his opponent's court, or if he otherwise lose a stroke, as provided by law 20.

19. A ball falling on a line is regarded as falling in the court bounded by that line.

20. Either player loses a stroke if the ball touch him, or anything that he wears or carries, except his racket in the act of striking; or if he touch the ball with his racket more than once; or if he touch the net or any of its supports while the ball is in play; or if he volley the ball before it has passed the net.

21. In case a player is obstructed by any accident not within his control, the ball shall be considered a "let." But where a permanent fixture of the court is the cause of the accident, the point shall be counted. The benches and chairs placed around

the court shall be considered permanent fixtures. If, however, a ball in play strike a permanent fixture of the court (other than the net or posts) before it touches the ground, the point is lost; if after it has touched the ground, the point shall be counted.

22. On either player winning his first stroke, the score is called 15 for that player; on either player winning his second stroke, the score is called 30 for that player; on either player winning his third stroke, the score is called 40 for that player; and the fourth stroke won by either player is scored game for that player, except as below: If both players have won three strokes, the score is called *deuce*; and the next stroke won by either player is scored *advantage* for that player. If the same player win the next stroke, he wins the game; if he lose the next stroke the score returns to *deuce*, and so on until one player wins the two strokes immediately following the score of *deuce*, when game is scored for that player.

23. The player who first wins six games wins the set; except as below: If both players win five games the score is called *games all*; and the next game won by either player is scored *advantage game* for that player. If the same player win the next game, he wins the set; if he lose the next game, the score returns to *games all*; and so on, until either player wins the two games immediately following the score of *games all*, when he wins the set. But the committee having charge of any tournament may in their discretion modify this rule by the omission of *advantage sets*.

24. The players shall change sides at the end of the first, third, and every subsequent alternate game of each set, and at the end of each set, unless the number of games in such set be even. It shall, however, be open to the players, by mutual consent and notification to the umpire before the opening of the second game of the match, to change sides instead at the end of every set until the odd and concluding set, in which they shall change sides at the end of the first, third, and every subsequent alternate game of such set.

*25. In all contests the play shall be continuous from the first

*All matches in which women take part in tournaments held under the auspices of the United States National Lawn Tennis Association shall be the best two sets, with a rest not exceeding seven minutes after the second set.

service till the match be concluded; provided, however, that at the end of the third set either player is entitled to a rest, which shall not exceed seven minutes; and provided, further, that in case of an unavoidable accident, not within the control of the contestants, a cessation of play which shall not exceed two minutes may be allowed between points; but this proviso shall be strictly construed, and the privilege never granted for the purpose of allowing a player to recover his strength or wind. The referee in his discretion may at any time postpone the match on account of darkness or condition of the ground or weather. In any case of postponement the previous score shall hold good. When the play has ceased for more than an hour the player, who at the cessation thereof was in the court first chosen, shall have the choice of courts on the recommencement of play. He shall stay in the court he chooses for the remainder of the set. The last two sentences of this rule do not apply when the players change every alternate game as provided by law 24.

26. If a player serve out of his turn the umpire, as soon as the mistake is discovered, shall direct the player to serve who ought to have served. But all strokes scored before such discovery shall be counted. If a game shall have been completed before such discovery, then the service in the next alternate game shall be delivered by the player who did not serve out of his turn, and so on in regular rotation.

27. The above laws shall apply to the three-handed and four-handed games, except as below:

THE THREE-HANDED AND FOUR-HANDED GAMES

28. For the three-handed and four-handed games the court shall be 36 feet in width; $4\frac{1}{2}$ feet inside the side-lines, and parallel with them, are drawn the service side-lines K M and L N. The service-lines are not drawn beyond the point at which they meet the service side-lines, as shown in the diagram.

29. In the three-handed game the single player shall serve in every alternate game.

30. In the four-handed game, the pair who have the right to

serve in the first game shall decide which partner shall do so; and the opposing pair shall decide in like manner for the second game. The partner of the player who served in the first game shall serve in the third, and the partner of the player who served in the second game shall serve in the fourth, and the same order shall be maintained in all the subsequent games of the set.

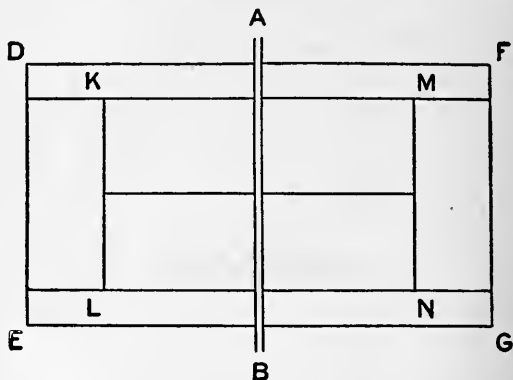


DIAGRAM P.—Single tennis court.

31. At the beginning of the next set, either partner of the pair which struck out in the last game of the last set may serve; and the same privilege is given to their opponents in second game of new set.

32. The players shall take the service alternately throughout the game; a player can not receive a service delivered to his partner; and the order of service and striking out once established shall not be altered, nor shall the striker-out change courts to receive the service, till the end of the set.

33. It is a fault if the ball served do not drop between the service-line, half-court line, and service side-line of the court, diagonally opposite to that from which it was served.

34. It is a fault if the ball served do not drop as provided in law 33, or if it touch the server's partner or anything he wears or carries.

APPENDIX



APPENDIX

HARVARD-YALE ATHLETIC AGREEMENT: IN EFFECT MARCH 15, 1903

THE two universities herewith enter into the following agreement for contests in the four main branches of sport—football, baseball, rowing and track athletics—under the following conditions, the agreement to continue for two years, and thereafter to continue for successive two-year periods, except upon notice to the contrary by properly constituted authorities not less than six weeks before the termination of the previous period of two years. Agreement to take effect March 15, 1903. The following rules are to take effect for all students who enter the universities after the summer of 1903. The eligibility of students who are now in the universities shall be determined under the rules now in force.

Any cases of disagreement as to the construction or meaning of this agreement, and of both the existing rules and the rules herewith adopted, shall be referred to an arbitration committee consisting of Mr. William R. Meikleham, of New York city, a graduate of Columbia University; Mr. R. D. Wrenn, representing Harvard; and Otto T. Bannard, representing Yale, whose decisions shall be final.

The captain at each university shall be held finally responsible for the eligibility of the list of candidates he submits, except in matters determined in college standing and scholarship.

At each university a committee of reference shall be appointed before October 1 of each year, this committee to include three graduates and the name of the committee to be published, with whom the captain shall confer as to the eligibility of his list of men.

In case of disagreement between the captain and his committee the case must be thus stated when submitting his list of names to the opposing captain, who may then refer it to the arbitration committee provided for in the preamble, whose decision shall be final. But even in case the captain and his own committee agree a case may still be referred by the opposing captain to the arbitration committee.

RULE 1.—No student shall be eligible unless he is, and intends to be throughout the academic year, *bona fide* a member of the university, taking a full year's work in courses leading to a degree. His name must have been presented at least two weeks in advance to the dean or director of the department in which he is enrolled and be declared by him to be in satisfactory standing.

NOTE (A).—No student shall be deemed to be in satisfactory standing within the meaning of this rule if he has been dropped from his class to a lower class, or from a first-year class out of the university, or if he is on probation. In case he has been dropped he must have com-

pleted satisfactorily one year's work before he shall be eligible, unless he shall in the meantime have made up all of the deficiencies which stand in the way of his restoration to his class.

(B).—A student whose college work is satisfactory, but who has been declared by the dean to have been dropped on account of sickness or entrance condition, shall be considered eligible under this rule.

(C).—A student who by reason of his probation or deficiency in his studies is not eligible will not become eligible by entering another department of the university until after he has completed satisfactorily one entire year's work.

RULE 2.—No student shall be eligible for a university team unless he is an undergraduate, or has been in attendance one full academic year at the university.

RULE 3.—No undergraduate who has ever played in an intercollegiate contest upon a university team of another college shall play upon a university team until he has resided one academic year at the university and passed the annual examination upon a full year's work.

RULE 4.—No student who has not passed an entrance examination shall be eligible until he has resided a year at the university and has passed satisfactorily in a course equivalent to that required of candidates for a degree in the department of which he is a member.

RULE 5.—No student shall represent one or more universities or colleges in athletic contests for more than four academic years; a student shall be considered to

have represented his university if he has taken part on a university team in any intercollegiate contest which was on the official schedule or regularly advertised, or where gate money was charged. NOTE.—In this rule the term college includes all institutions named in the list of colleges and technological schools in the last report of the United States Commissioner of Education as revised by the committees.

RULE 6.—No student shall be eligible who shall have received, in order to enable him to take part in or for participation in or for teaching any form of athletics, any pecuniary gain or emolument whatever, with the single exception that he may have received from his college organization or from any permanent amateur association of which he was at the time a regular member the amount by which the expenses incurred by him in representing his organization in athletic contests exceeded his ordinary expenses.

RULE 7.—No student shall be a member of the freshman team or crew except one who has never before attended another college or university and who is a member of the first-year class and in his first year of residence and in satisfactory standing.

RULE 8.—Each captain shall submit to the other captain in writing, at least three weeks before the contest, a list of his men. No protest against any man shall be considered unless sent by registered mail at least two weeks before the contest in which the man is to take part.

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